DOCUMENT RESUME

ED 249 853 HE 017 739

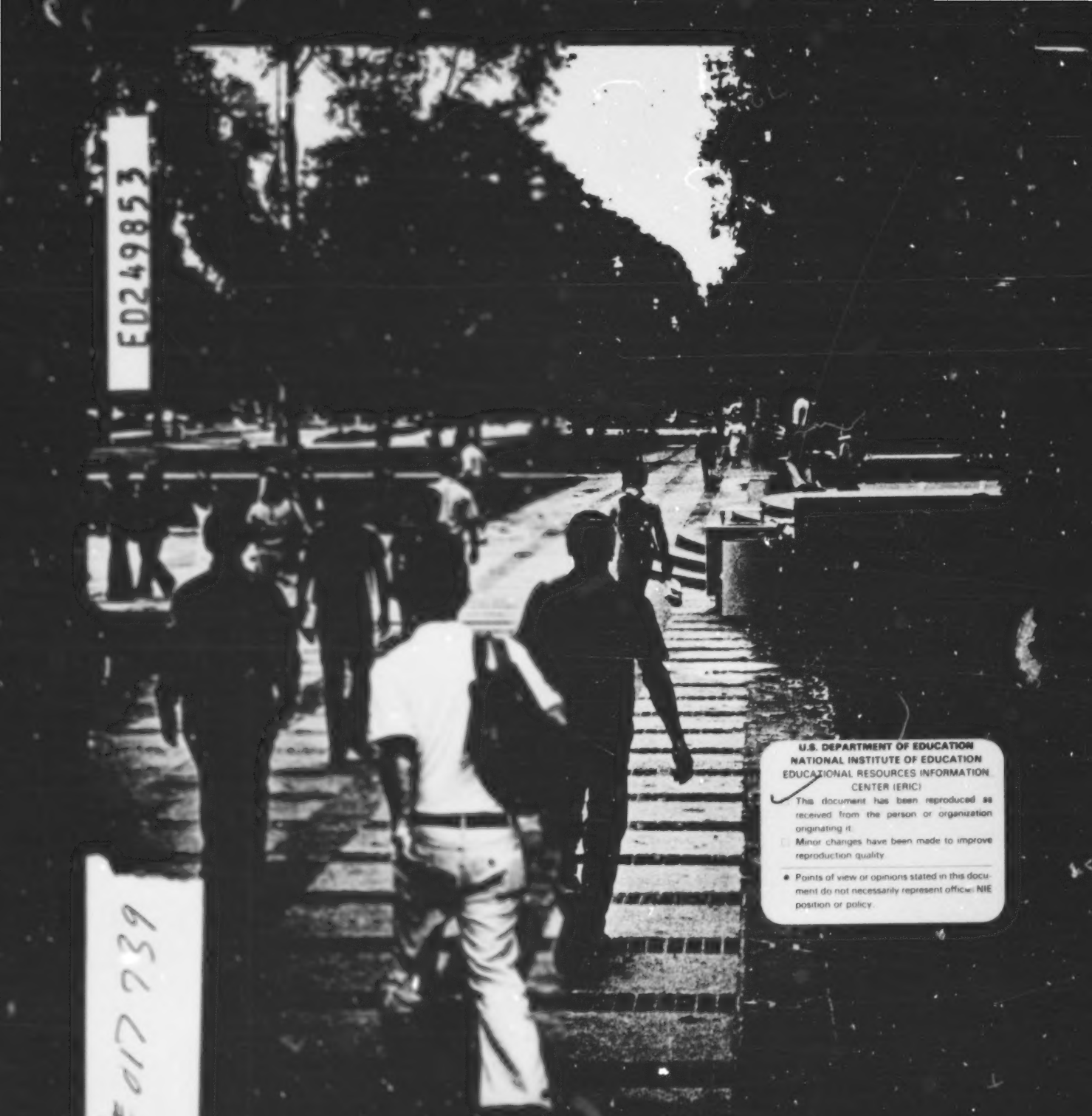
AUTHOR	Coulson, John E.; Bradford, Clarence
TITLE	Evaluation of the Special Services for Disadvantaged Students (SSDS) Program: Final Report.
INSTITUTION	System Development Corp., Santa Monica, Calif.
SPONS AGENCY	Department of Education, Washington, DC.
PUB DATE	Oct 83
CONTRACT	300-78-0356
NOTE	103p.; For related documents, see ED 145 743 and ED 214 412.
PUB TYPE	Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	*Academic Persistence; *Ancillary School Services; *College Students; *Disadvantaged; *Federal Programs; Followup Studies; Higher Education; *High Risk Students; Occupational Aspiration; Program Evaluation; Questionnaires; Student Evaluation; Student Financial Aid; Use Studies
IDENTIFIERS	*Special Services for Disadvantaged Students

ABSTRACT

The results of a 1983 followup survey to assess the long-term impact of the federally-funded Special Services for Disadvantaged Students (SSDS) program are presented. Educationally or economically disadvantaged students who enrolled in the program during their freshman year, 1979-1980, were studied. Questionnaires investigated respondents' educational experiences since their freshman year (periods of enrollment, institutions attended, amounts and types of special services received, and financial assistance received). The kinds of jobs that respondents hoped to have in 5 years were also identified. Student transcripts were examined for information on the number of school terms completed by students, the number of course units attempted and completed, and the students' grade point average. Relationships among freshman-year services, post-freshman services, and student outcomes were also determined: (1) The freshman's moderate use of services (i.e., a single type of service or two types of services) was associated with better outcomes, such as more extended enrollment, and with a greater number of course units attempted and completed; (2) Intensive academic services in the freshman year were not associated with better outcomes; (3) Non-academic services, on the other hand, are associated with better outcomes, including higher grades; and (4) Academic services received after the freshman year are associated with poorer long-term academic outcomes. Information is included on the background and goals of the SSDS program and the design and major findings of a previous base-line study. The study questionnaire is appended. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED249853



U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

NE 017 739

Evaluation of the Special Services for Disadvantaged Students (SSDS) Program: Final Report

Evaluation of the Special Services for Disadvantaged Students (SSDS) Program: Final Report

John E. Coulson
and
Clarence Bradford

October 1983

U.S. Department of Education Contract
Number 300-78-0356

System Development Corporation

TM-6198/004/00

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
CHAPTER 1. INTRODUCTION AND BACKGROUND	1-1
A. Overview of the SSDS Program	1-1
B. Review of Base-Year Study Design and Findings	1-2
C. Objectives of the Phase III Follow-Up Study	1-5
CHAPTER 2. STUDY DESIGN AND METHODOLOGY	2-1
A. Design Overview	2-1
B. Sampling	2-3
C. Data Collection Instruments	2-6
D. Data Collection Procedures	2-7
E. Data Quality	2-8
CHAPTER 3. EXPERIENCES OF SAMPLE MEMBERS SINCE FRESHMAN YEAR	3-1
A. Educational Attainment	3-1
B. Reasons for Leaving Higher Education	3-3
C. Participation In and Helpfulness of Special Services	3-6
D. Employment Status	3-8
E. Sources of Financial Support for Schooling	3-11
F. Summary	3-17
CHAPTER 4. EFFECTS ON STUDENTS OF PARTICIPATION IN SPECIAL SERVICES.	4-1
A. Variables Used in the Impact Analyses	4-3
B. Analyses of Program Impact on Students' Academic Persistence, Intensity of Effort, Progress, and Performance	4-7
C. Analysis of Impact on Students' Educational and Vocational Plans.	4-22
D. Summary and Discussion of Results	4-23
CHAPTER 5. RELATIONSHIPS AMONG FRESHMAN-YEAR SERVICES, POST-FRESHMAN SERVICES, AND STUDENT OUTCOMES	5-1
APPENDIX. STUDENT FOLLOW-UP SURVEY	A-1

LIST OF TABLES

		Page
Table 2-1	Percentage Distributions for Institution Type and Participation Profiles for Four Samples	2-12
Table 3-1	Student Status of Survey Respondents After Their Freshman Year	3-2
Table 3-2	Percentages of Students Attending Different Types of Institutions, by Term	3-4
Table 3-3	Numbers and Percentages of Respondents Designating Various Factors as most Important or Second Most Important Reason for Leaving School	3-5
Table 3-4	Numbers and Percentages (in Parentheses) of Respondents Reporting Different Levels of Use of Various Special Services Since Their Freshman Year	3-7
Table 3-5	Numbers and Percentages of Respondents Reporting Different Levels of Helpfulness of Special Services	3-9
Table 3-6	Numbers and Percentages of Students and Non-Students Reporting Different Work Statuses	3-10
Table 3-7	Numbers and Percentages of Students and Non-Students Reporting Different Hourly Wages	3-11
Table 3-8	Numbers and Percentages of Students Reporting Use of Different Levels of Personal Savings to Pay For Education Costs of Current Term	3-12
Table 3-9	Numbers and Percentages of Students Reporting Use of Different Levels of Loans to Pay For Education Costs of Current Term	3-13
Table 3-10	Numbers and Percentages of Students Reporting Receipt of Different Levels of Scholarships or Grants	3-14
Table 3-11	Numbers and Percentages of Students Reporting Receipt of Different Levels of Financial Aid From Families	3-15
Table 3-12	Numbers and Percentages of Students Reporting Access to Different Sources of Financial Help in Meeting Education Expenses	3-16
Table 4-1	Summary of Project Services and Additional Types of Outside Services Associated With Each Performance Profile	4-6
Table 4-2	Linear Regression Predicting Academic Persistence	4-10

LIST OF TABLES (Cont'd)

		Page
Table 4-3	Linear Regression Predicting Academic Intensity and Progress	4-14
Table 4-4	Linear Regression Predicting Performance (GPA)	4-20
Table 5-1	Linear Regression Using Freshman-Year and Post-Freshman Services to Predict Intensity, Progress, Persistence, and Performance	5-3

ACKNOWLEDGEMENTS

The authors wish to thank Dr. Robert Berls, the U.S. Department of Education's Project Officer, for his valuable suggestions regarding the technical conduct of Phase III of the SSDS evaluation, and for his constructive comments in reviewing an earlier draft of this final report. Dr. Berls succeeded Dr. Dennis Carroll as Project Officer shortly before completion of Phase II.

Other Education Department representatives who contributed useful guidance and interpretations in the study's earlier phases included Velma Monteiro, formerly Chief of Policy Development Branch, Division of Student Services, Office of Postsecondary Education; and Shelley Laverty, then a Program Analyst in the Policy Development Branch, Office of Postsecondary Education.

Also gratefully acknowledged are the recommendations and comments of individuals who served as advisory panel members and consultants to this project in Phases I and II. These included the following:

Policy Advisory Group

Robert Boruch
Northwestern University

William Cooley
University of Pittsburgh

James Hamilton
Michigan State University

Gilbert de los Santos
Pan American University

Vincent Tinto
Syracuse University

Lucy Wilson
Old Dominion University

Consultants on Methodology

Winston Doby
University of California, Los Angeles

Howard Sandler
Peabody College

William Schmidt
Michigan State University

Project Directors Serving as Consultants

Arturo Franco
California State University at Fullerton

Carolyn Hamilton
San Jose State University

William Molina
Comprehensive Educational Services

SDC staff members on the study, in addition to the authors of this report, have included Michael Arnold, Aida Bell, Claudia Brown, Gary Duck, Kathy Farrar, James Hoyt, and Olga Sanders. Without the conscientious efforts of these individuals, it would not have been possible to collect or analyze the data on which this report is based.

Finally, we wish to express appreciation to the participating institutions and SSDS projects, for their active cooperation and assistance in the study's data collection activities.

While acknowledging the contributions of individuals mentioned above, the authors take final responsibility for this report, which does not necessarily represent the opinions of those individuals or the official position of the U.S. Department of Education.

EXECUTIVE SUMMARY

EVALUATION OF THE SPECIAL SERVICES FOR DISADVANTAGED STUDENTS (SSDS) PROGRAM: FINAL REPORT

BACKGROUND

This report describes the results of a follow-up survey conducted in 1983 to assess the longer-term impact of the federally funded Special Services for Disadvantaged Students (SSDS) program on students who participated in that postsecondary-level program during their freshman year (1979-80). The work summarized in this report constitutes Phase III of a three-phase national evaluation of SSDS. Phase I was devoted to preparation for the evaluation, and included development of the initial research design, sampling plan, and analysis plan, and construction of the base-year data collection instruments. In Phase II, the base-year data were collected and analyzed. Phase III has included the development of plans and instrumentation for the follow-up survey, collection of the follow-up data, analysis of those data, and preparation of the present report.

The SSDS program is authorized under the Higher Education Amendments of 1968, as further amended in 1978. Its functions are legislatively defined as:

> Programs of remedial and other special services for students with academic potential who are enrolled or accepted for enrollment at the institution... and who, by reason of deprived educational, cultural or economic background, or physical handicap, are in need of such services to assist them to initiate, continue, or resume their postsecondary education or by reason of limited English-speaking ability are in need of bilingual educational teaching, guidance, and counseling in order to enable them to pursue a postsecondary education.

Within the general design framework of the SSDS regulations, projects vary widely in the services that they provide, their methods of selecting student participants, their funding levels, and the numbers of students they serve.

In an earlier report* produced at the conclusion of Phase II, descriptive data were presented on a national sample of 58 SSDS projects in 1979-80, and on certain characteristics of the postsecondary institutions hosting those projects. That report also provided summary information about a sample of students designated by the host institutions as eligible for SSDS services, and about the types and amounts of services actually received by those students. Finally, the Phase II report presented findings related to the short-term impact of SSDS services on participating students during their freshman year. Briefly, these base-year findings were that:

- Students receiving a full range of SSDS services were more likely to persist (stay enrolled) through their freshman year than were students receiving few or no services.

- Students receiving more services were likely to attempt and to complete more course units.

- Students receiving a full range of SSDS services had lower grade point averages than students receiving few services. This finding was interpreted as a selection effect rather than a negative effect of the services, i.e., projects tended to concentrate services on students with poorer entry skills.

- Minority and low-income participants received lower grade point averages than others, and took fewer course units, but their persistence through the freshman year was no less.

*Coulson, J. E., Bradford, C., and Kaye, J. Evaluation of the Special Services for Disadvantaged Students (SSDS) program: 1979-80 academic year. Santa Monica: System Development Corporation, 1981. (Technical Memorandum TM-6198/003/00)

- Students receiving more financial aid were more likely to persist through their freshman year, and tended to attempt and complete more course units and to obtain higher grades. (SSDS projects do not provide or directly arrange financial aid for students, but they may refer students to potential sources of aid.)

Whereas the Phase II report focused upon the short-term impact of SSDS services during the sample students' freshman year, the present report is concerned with the students' academic and job-related experiences since their freshman year, and with the impact of SSDS services on the students' postsecondary efforts and achievements over a multi-year period. Based upon follow-up data collected in 1982-83, it addresses the issue of whether students who received greater amounts of SSDS services persisted longer in their postsecondary studies, attempted and complete more course units, and made better grades. It also provides evidence regarding the impact of SSDS services on the students' long-term job plans.

METHODOLOGY OF FOLLOW-UP STUDY

Two primary forms of data collection were used to obtain the follow-up information in 1982-83. First, survey questionnaires were mailed to all students or former students who had participated in the base-year impact study, i.e., individuals who were freshmen in 1979-80 and who returned at least one survey instrument during that year. The follow-up survey asked about the respondents' educational experiences since their freshman year (periods of enrollment, institutions attended, amounts and types of special services received), and about the forms and amounts of financial assistance used by them to support the costs of their educational endeavors. In addition, the survey asked what

kinds of jobs the respondents planned to have five years in the future. A special non-respondent survey was conducted, with telephone interviewers attempting to reach 1000 sample members who had not returned mail questionnaires; this survey was performed to provide evidence concerning the extent and direction of data bias that might have resulted from a non-random distribution of non-responses to the mail survey.

Second, transcripts were obtained late in the 1982-83 academic year for as many as possible of the sample members. Because of school transfers, this involved requests to many more postsecondary institutions than the 58 constituting the base-year sample. Outcome data abstracted from the transcripts included the number of school terms completed by the students, the number of course units attempted and completed, and the students' grade point averages.

FINDINGS

Experiences of Sample Members Since Freshman Year

The data indicate that many of the sample members, who were designated in their freshman year as eligible for SSDS services by reason of their deprived educational, cultural, or economic backgrounds, were persistent in their efforts to obtain postsecondary education; almost 60 percent were still enrolled three years after the initial survey, and over half were full-time students. Most of the respondents indicated they had received some SSDS-type services beyond their freshman year, with counseling and tutoring being the most commonly reported services.

While not the only consideration, economics was an important factor determining whether the sample members were still enrolled or had left school.

Those still enrolled had called on a wide variety of financial resources to help pay their education expenses. Over half had jobs, and almost 15 percent had full-time positions, in addition to their school work, but most of these jobs paid poorly, with almost half the working students being paid at or near the minimum wage level. Other fairly common sources of funding for the students included personal savings, educational loans, grants or scholarships (including Pell Grants), and family assistance.

Longer-Term Impact of Special Services Received by Students

The data collected earlier in Phase II, on special services received by the students in their freshman year, were studied in relation to long term outcome measures based on transcripts obtained three years later. The outcome measures of greatest interest were the amount of time students had stayed enrolled, the number of course units attempted, the number of units completed, and the grade point average.

In general, students with freshman-year participation profiles representing moderate levels of services, e.g., a single type of academic service (tutoring, group instruction, academic counseling) or a combination of two types of services tended to show superior performance on three of the long-term outcome measures (time enrolled, and course units attempted and completed), compared with students who received no special services in their freshman year. However, only certain pairings of services and outcomes showed these relationships, and there was no clear evidence that one particular kind of service was superior to another. Furthermore, there was a negative relationsnip between some service combinations and students' grade point average.

Complicating the interpretation further, the freshman-year participation profiles representing the most intensive combinations of services showed no relationships with the long-term outcomes, or in certain cases, negative associations. One possible explanation is that the academic services were generally beneficial, but that the most intensive services were targeted toward students with the greatest learning deficiencies and were unable to overcome those deficiencies.

Unlike the academically oriented special services, non-academic services (student orientation, cultural services, assessment, and referrals) showed consistently positive associations with all four of the long-term outcome measures. Although most students received only a few hours of the non-academic services in their freshman year, it appears that these services may have had a disproportionately large positive impact. It is conjectured that the non-academic services achieved their results by allaying some of the students' anxiety about attempting to compete in a strange environment, and by giving them a better idea of what they were expected to do in college, how they were expected to behave, and what help and resources they could expect from their institutions.

Data obtained from sample members in 1982-83, regarding special services received after their freshman year, were analyzed along with the freshman-year service data, to allow independent examination of the effects of freshman-year and post-freshman services on the long-term transcript-based outcome measures. The post-freshman non-academic services, like those received in the students' freshman year, showed consistent positive associations, reinforcing the interpretation that the non-academic services

had favorable effects on the students' academic careers. However, post-freshman academic services, unlike the freshman-year adacemic services, showed generally negative associations with the outcome measures.

All of these relationships should be interpreted cautiously in attempting to ascribe causal connections between the special services received by students, and their subsequent postsecondary education experiences and achievements. In at least some cases, an apparent positive or negative impact of project services may actually reflect selection factors, i.e., a student may be selected for certain services <u>because</u> his or her performance at that point is particularly strong or weak. In addition, some of the data (e.g., information about post-freshman services) are less detailed and objective than might be desired to support attributions of program impact. Taking these caveats into account, however, the following general patterns of relationships between special services and long-term academic outcomes may be summarized:

- Moderate levels of academically oriented special services provided in a student's freshman year are associated with more extended enrollment, and with greater numbers of course units attempted and completed.

- More intensive academically oriented special services in a student's freshman year are not associated with improved outcomes, and may show negative associations.

- Non-academic special services received either during the freshman year or later, are associated with more extended enrollment, greater numbers of course units attempted and completed, and higher grades achieved.

- Academic special services received after the freshman year are associated with poorer long-term academic outcomes.

CHAPTER 1. INTRODUCTION AND BACKGROUND

This report describes the results of a follow-up survey conducted in 1983 to assess the longer-term impact of the federally funded Special Services for Disadvantaged Students (SSDS) program on students who participated in that program during their freshman year (1979-1980 academic year). The work summarized in this report constitutes Phase III of a three-phase national evaluation of SSDS. Phase I was devoted to preparation for the evaluation, and included development of the initial research design, sampling plan, and analysis plan, and construction of the base-year data collection instruments. In Phase II, the base-year data were collected and analyzed, and a report* was prepared describing the results of that base-year effort. Phase III has included the development of plans and instrumentation for the follow-up survey, collection of the follow-up data, analysis of those data, and preparation of the present report.

The remainder of this introductory chapter briefly reviews the background and goals of the SSDS program, summarizes the design and major findings of the base-year evaluation, and then describes the objectives of the Phase III follow-up study.

A. Overview of the SSDS Program

The Higher Education Amendments of 1968, as further amended in 1978 (P.L. 94-482), authorized the Special Services for Disadvantaged Students Program, and defined its function as:

> Programs of remedial and other special services for students with academic potential who are enrolled or accepted for enrollment at the institution...and who, by reason of deprived educational, cultural or economic background, or physical handicap, are in need of such services to assist them to initiate, continue, or resume their postsecondary education or by reason of limited English-speaking ability are in need of bilingual educational teaching, guidance, and counseling in order to enable them to pursue a postsecondary education.

*Coulson, J. E., Bradford, C., and Kaye, J. Evaluation of the Special Services for Disadvantaged Students (SSDS) program: 1979-80 academic year. Santa Monica: System Development Corporation, 1981. (Technical Memorandum TM-6198/003/00)

SSDS gives project grants to selected institutions of higher education that have applied for funds under a competitive award system. In FY 1980, a total of $60 million was appropriated for SSDS.

Within the general design framework of the SSDS regulations, projects vary widely in the services that they provide, their methods of selecting student participants, their funding levels, and the numbers of students they serve.

B. Review of Base-Year Study Design and Findings

The national evaluation of the SSDS program is being conducted by System Development Corporation under a contract from the Education Department's Office of Planning, Budgeting, and Evaluation. One goal of the base-year study was to describe a national sample of SSDS projects, and the institutions in which those projects operated, and to characterize samples of students having different levels of participation in project activities. A second goal was to determine the short-term impact (i.e., impact within the students' freshman year) of project participation on students' persistence (completion of the academic year), intensity and progress (courses attempted and completed), and performance (grade point average). This second goal was given somewhat less emphasis in the base-year report, because the most important program benefits were expected to require two or three years to show their full impact.

Methodology of Base-Year Study

The base-year study focused on a nationally representative sample of 58 mature projects (projects that had been in continuous operation for at least three years including the 1979-80 study year). The sampling universe was defined to exclude vocational/technical schools, institutions located outside the 48 coterminous states, and projects whose services were designed exclusively for the physically handicapped; these excluded institutions collectively accounted for only about 5 percent of all host institutions.

The sample from each site comprised up to 200 students (180 freshmen and 20 of other levels) judged by the project to be eligible for project services. Some of the eligible students were already known to be participating in project activities at the time they were selected; others were not yet participating, but might in the normal course of events participate before the end of the academic year. All projects were told that they should apply their normal procedures for selection of students to receive services, without regard to whether those students were in the study sample. Thus, the study used a natural variations design in which a particular sample student's pattern of participation in project services could be defined only at the conclusion of the academic year.

Project and institutional data were collected by mail surveys and face-to-face interviews administered to SSDS Project Directors and to institutional administrators once during the academic year, as well as by questionnaires administered once to a sample of institutional faculty members. Student data were collected by mail surveys administered to the sample students at the beginning and end of the academic year, and by student transcripts collected at the end of the year. (Analysis revealed no important bias introduced by nonresponses or by sample attrition.) In addition, SSDS project staff members completed a participation record every time any student or group of students received some type of project service; these records were maintained for all participating students in the sample institutions.

Analyses of project impact were focused exclusively on students who were freshmen in the base-year, because such students provided the best opportunity to trace their academic progress over a three- or four-year period.

Base-Year Findings

The key findings of the base-year study were that:

- SSDS services were being focused, as intended, on economically and educationally deprived students.

- There was some evidence of beneficial program impact on participating students.
  - Students receiving a full range of SSDS services were more likely to persist through their freshman year than were students receiving few or no services.
  - Students receiving more services were likely to attempt and to complete more course units.
  - Students receiving a full range of SSDS services had lower grade-point averages than students receiving fewer services, but this appeared to be a selection effect rather than a negative effect of the services, i.e., projects tended to concentrate services on students with poorer entry skills.
  - Minority and low-income participants received lower grade-point averages than others, and took fewer course units, but their persistence through the freshman year was no less.
  - Students receiving more financial aid were more likely to persist through their freshman year, and tended to attempt and complete more course units and to obtain higher grades. (SSDS projects do not provide or directly arrange financial aid for students, but they may refer students to potential sources of aid.)
- With regard to SSDS project characteristics:
  - Most Project Directors were quite experienced, and tended to be members of minority groups, with more than half of them Black.
  - Many projects had relatively small numbers of regular professional staff members, most of whom were fairly experienced, augmented by substantial numbers of students who worked part time as tutors, peer counselors, etc.

- The average project had 414 participating students, approximately 70 percent of whom were of minority groups, and a total annual budget of around $132,000. Some projects received funding from state and/or local sources, but on the average, Federal funding accounted for almost 80 percent of the total project budget.

- Most projects provided services during the summer as well as during the regular academic year.

- The average participating student received some type of project service 14 times during the academic year, and had an average total participation time of about 14 hours. Larger projects tended to have lower average costs per student hour of services. About half the project students received tutoring; their average total amount of tutorial time over the academic year was about 9 hours. Approximately a third of the project students received special group instruction; the average total period of such instruction for this subgroup was around 20 hours. Roughly two-thirds of participating students received counseling and three-fourths received orientation and/or cultural-relations services, but the total duration of such services over the year was typically quite small (e.g., one to four hours).

C. Objectives of the Phase III Follow-Up Study

In Phase II, as noted above, data were collected on a sample of freshman students in a national sample of postsecondary institutions hosting SSDS projects. During that freshman year, different students in the sample got different amounts and types of SSDS (or SSDS-like) services; data on these students were analyzed to determine whether certain levels and types of SSDS participation were associated with more desirable student outcomes. Of necessity, however, those analyses were limited to short-term program effects occurring within a single academic year, and it was felt that a follow-up was necessary to evaluate longer-term impact of student participation in SSDS activities.

The basic objective of Phase III is to provide this longer-term impact evaluation. Follow-up data were collected in 1982-83, by which time most of the sample students had become college seniors or had left school, in many cases to enter the labor market. Thus, the Phase III follow-up survey provided outcome data at a point where most of the sample numbers had completed their formal education.

More specifically, the five goals of the Phase III evaluation are to:

- Determine the longer-term impact of SSDS (or SSDS-like)* program participation on student persistence, intensity, progress, and performance in postsecondary studies.
- Examine the impact of student participation in SSDS services on the students' future employment plans.
- Examine the relative impact on student outcomes of SSDS services received after the freshman year, compared with the impact of such services received in that first year.
- Describe the educational and job-related experiences of sample members since the freshman year.
- Determine the characteristics of the students (or former students) available for the Phase III analyses. Compare this sample to that available for the Phase II analyses to assess possible sample bias resulting from differential sample attrition.

*The term "SSDS-like" reflects the fact that in some institutions, funds from several sources were pooled in a single special-services project. In such cases, it may be impossible to determine whether the services provided to a particular student at a particular time are being paid for by SSDS or some other program. The goal of this study, in any case, is to identify successful practices that could be emphasized in future SSDS projects to improve the effectiveness of the overall SSDS program. In the remainder of this report, the phrase "SSDS services" is used in the more general sense of "SSDS-like," and does not necessarily mean services purchased exclusively by SSDS program funds.

CHAPTER 2. STUDY DESIGN AND METHODOLOGY

This chapter describes the research methodology of Phase III, including the sampling, the data collection instruments, and procedures used to administer those instruments. (Analytic procedures are discussed in the chapters presenting results of those analyses.) Before discussing operational details, however, a brief overview of the Phase III design is presented in the context of the total SSDS evaluation.

A. Design Overview

As noted in Chapter 1, Phase II data collection in 1979-80 included extensive data on the sample SSDS projects, the institutions hosting those projects, and the services received by students participating in the projects. It also included descriptive and outcome data for students who received different amounts and types of SSDS (or SSDS-like) services. Phase III was designed to collect longer-term outcome data for those same students (or former students), and to relate those new outcome data to the students' earlier educational experiences, especially to their participation in special services. Thus, the emphasis in Phase III was on maintaining the Phase II sample as intact as possible, and on collecting outcome data in 1982-83 that were as comparable as possible to data collected in Phase II (i.e., in 1979-80). While Phase III also included collection of some new data on special services received by the students subsequent to 1979-80, these were at a much less detailed level than the service data collected in the students' freshman year.

The Phase III design can be related more specifically, as follows, to the five study goals listed in Chapter 1:

Goal 1. Determine the longer-term impact of SSDS program participation on student persistence, intensity, progress, and performance in postsecondary studies.

New outcome data are obtained from student transcripts in 1982-83 and analyzed in relation to the detailed student-participation data collected in 1979-80. The results of these analyses are reported in Chapter 4.

Goal 2. Examine the impact of student participation in SSDS services on the students' future employment plans.

This goal is addressed in Chapter 4 by analyzing data on student employment plans (collected in the 1982-83 follow-up survey) in relation to the earlier data on special services received by the students.

Goal 3. Examine the impact on student outcomes of SSDS services received after the freshman year, in relation to the impact of such services received in that first year.

To satisfy this goal, analyses are conducted to separate and relate the effects of special services received during and subsequent to the students' freshman year. These analyses, reported in Chapter 5, draw upon new outcome data collected in 1982-83, detailed program-participation data collected in 1979-80, and more general information collected from students in 1982-83 concerning their receipt of special services after their freshman year.

Goal 4. Describe the educational and job-related experiences of sample members since the base year.

Data relating to the sample students' post-freshman educational and employment experiences are presented in simple descriptive summaries in Chapter 3. These data, obtained from the 1982-83 follow-up survey, help to round out the picture of what happened to SSDS-eligible students over a four-year period.

Goal 5. Determine the characteristics of the students (or former students) available for the Phase III analysis. Compare this sample with that available for the Phase II analyses to assess possible sample bias resulting from differential sample attrition.

This goal, though methodological in nature, is highly relevant to the question of how generalizable the Phase III findings may be to the total freshman sample first examined in 1979-80. In addition to comparing the analysis groups for 1979-80 (Phase II) and 1982-83 (Phase III), achievement of this goal also involves special analysis of data from a telephone survey of nonrespondents to the 1982-83 follow-up survey, to see how they differ from students who returned their surveys. Issues of data quality and generalizability are discussed in a latter section of this chapter.

B. Sampling

Because of the heavy emphasis in Phase III on comparisons of certain outcome measures for students with different histories of exposure to special services, the sampling strategy for Phase III was to maintain as large a proportion as

possible of the student sample on whom data were initially collected in the base year (1979-80). The Phase III sample was limited to individuals who had been freshmen in the base year, as these were the persons whose academic careers could most meaningfully be traced over a multi-year period. Also, these were the individuals on whom the analyses of short-term program impact had been performed in Phase II, and thus they were the logical candidates for the longer-term impact analyses.

While the basic goal and the design of Phase III sampling were entirely straightforward, implementation of the design was considerably more complicated. Our last contact with many of the students, prior to Phase III data collection, had been in the spring of 1980;* thus, over two and a half years had elapsed when Phase III data collection began in the fall of 1982. During that period, many of the individuals had moved several times, a large number had changed institutions at least once, and many had left school completely. Thus, the real challenge for Phase III sampling was to locate and renew contacts with an adequate segment of the intended sample. Since, under these conditions, a fairly high nonresponse rate could be anticipated, the sampling plan also needed to make provision for special procedures to give estimates of the degree of nonresponse bias in the data collected. In particular, a subsample of nonrespondents to the mail survey was drawn, so that attempts could be made to reach those nonrespondents by telephone, and to obtain at least certain core descriptive data that could be used for the nonrespondent bias analysis.

*Postcards were mailed to the sample students' last-known addresses in the late winter/early spring of 1981, in an effort to obtain updated addresses and thereby to improve the chances of reaching the students for the Phase III follow-on survey. However, only about 1900 students returned their postcards, so for most students the 1979-80 addresses were used in the Phase III survey.

The remainder of this section briefly describes the sampling frame for Phase III, and then discusses the special sampling for the telephone survey of questionnaire nonrespondents. Readers interested in greater details on the original (Phase I/II) sampling design are referred to the sampling plan document for that phase.**

1. Phase III Sampling Frame

The sampling frame for Phase III consisted of all students who had been drawn for the Phase I/II freshman sample, and who had returned either the fall 1979 or the spring 1980 student survey. Review of the response data from the Phase II data collection, and of information obtained in the later address update effort, revealed some duplication of students, i.e., students listed twice under slightly different names. These duplicates were eliminated, as were students with obviously erroneous or unusable addresses. This pruning process led to a final sample of 6356 students or former students to whom Phase III survey questionnaires were mailed.

2. Nonrespondent Sampling

The initial sampling frame for the nonrespondent telephone survey consisted of all students to whom the Phase III follow-up survey was mailed, and from whom no survey form or other response had been received as of April 1983. From this initial list were subtracted any individuals who had been determined to be dead or to have left the country. The final sampling frame included a total of 2,952 students. From this total, a nonrespondent sample of 1000 persons was selected by simple random sampling.

**Bradford, C. H. Institution and Proposal Sampling Plan. Santa Monica: System Development Corporation, 1978 (Technical Memorandum TM-6198/000/00).

C. Data Collection Instruments

Three instruments/data sources were used for the Phase III study. Each of these is described below.

1. Student Survey Form 3 (Follow-Up Mail Survey)

This questionnaire, reproduced in the Appendix, was the major new data collection instrument for Phase III. It used in identical or modified form approximately half of the items that had been used in the spring 1980 student survey. The repeated or adapted items asked about any special services received by the students since their freshman year, about the perceived helpfulness of those services, and about the students' financial condition (loans, scholarships, family help, etc.). Other items sought information on the students' school- or work-related experiences between the fall of 1980 (i.e., subsequent to the Phase II survey) and the fall of 1982. One major new item in this questionnaire asked for the name and location of the postsecondary institution currently attended or most recently attended by the respondent. The purpose of this question was to provide SDC with institutional mailing addresses that could be used to request transcripts for individuals who had transferred to different institutions subsequent to their freshman year. Obtaining these transcripts helped SDC in reconstructing the full academic histories of the transferred students.

2. Telephone Follow-Up Form

This brief form was used to record information obtained from the nonrespondent sample through telephone interviews. Questions in the telephone interviews were designed to:

- determine the postsecondary institutions currently or most recently attended (so that transcripts could be obtained)
- provide summary information about how much additional education the individuals had received since their freshman year (so that comparisons could be drawn on this important dimension between the mail survey respondents and non-respondents)
- determine whether the individuals were still working, and if so, in what type of job
- ascertain how long the individuals had been in or received help from SSDS or SSDS-like projects (for respondent/nonrespondent comparison purposes).

3. Transcripts

Transcripts were requested from the institution most recently attended, for all students to whom the follow-up survey questionnaires were sent and who did not return a form indicating that they did not wish SDC to obtain their transcripts. Information used from the transcripts included the number of credit hours attempted, the number completed, the students' grade point averages, and the last semester of attendance. These are the same information items (outcome measures) that were used in the Phase II impact analyses.

D. Data Collection Procedures

Two waves of survey questionnaires were mailed -- the first starting in October 1982, and the follow-up wave to initial nonrespondents beginning in late January, 1983. In the first mailing, $2.00 stipend checks were enclosed with the questionnaires, to encourage student cooperation.

The survey nonrespondent sampling frame was defined in March 1983, even though a small trickle of completed questionnaires was still being received. The telephone interviews of the nonrespondent sample took place in April, 1983.

Transcript requests were first made by mail starting in May, 1983. The requests were sent to 460 institutions: the original sample of 58, plus 402 institutions to which students indicated they had transferred. In June, a second mail request was sent to all non-responding institutions, and in July, telephone calls were made to 22 original institutions that had not responded, again urging them to send the requested transcripts.

E. Data Quality

This section is concerned with the response rates for the different kinds of student data sought in Phase III, and with analyses performed to determine whether any response bias may have been introduced by non-random sample attrition, i.e., by systematic differences between respondents and nonrespondents.

1. Survey Response Rates

Response rates for the Phase III survey questionnaire are considered here at two levels, the first relating to the percentage of intended respondents actually returning their questionnaires with at least some of the questions answered, and the second level concerned with the percentages of usable responses to individual items within the questionnaire. At the first (overall questionnaire) level, instruments were mailed to a total of 6356 individuals. Of this number, 920 forms were returned with information indicating that the intended recipients had moved, and that no forwarding addresses were known. An additional 25 forms were returned with information that the intended recipient had died or had permanently left the country; another 8 students indicated absolute refusal to complete the questionnaire. This left a total

of 5403 forms that were presumably delivered and could have been returned. Of this number, 2747 questionnaires, or about 50 percent, were returned completed.

The second aspect of the survey response rate concerns the extent to which the returned questionnaires were completed with usable responses. The item response rate for the Phase III student questionnaire was very high for all but a few items. For most items the response rate was 97 percent or higher. There were two exceptions to this generally high response rate, the first of which related to an item asking the student to indicate the source of funding for each different type of SSDS service he or she used (Federal Government, Other Sources, Don't Know). In many instances, fewer than half the students responded to the item, failing even to give a "Don't Know" response. The second exception to the very high item response rate was in the item asking how much more education the respondents wanted and how much more they expected to get. Since the follow-on survey was administered more than three years after the students began their postsecondary studies, most of them had probably finished as much education as they wanted or expected, so it is not surprising that many respondents found the question meaningless.

2. Response Rates for Telephone Interviews of Survey Nonrespondents

Of the 1000 students selected for telephone interviews, information was obtained from 630, or 63 percent. Of the remaining 370 intended interviewees, 350 could not be reached by telephone, even after repeated tries; another 11 refused to give any information; and the information obtained from the final 9 was inconsistent or obviously incorrect.

3. Response Rate for Transcript Requests

A total of 5632 students were in the sample for whom transcripts might have been requested for the Phase III study. This is the number of students in the Phase II study who returned one of the Phase II questionnaires. As indicated earlier, 8 students refused to participate and another 25 students had died. Of the remaining 5599 students, 531 or 9.5 percent returned the transcript request form saying that they did not wish to release their transcripts to the study. This left a total of 5,068 transcripts that could be requested. Of this number, 721 of the students indicated that they had changed schools, leaving 4,347 transcripts that were requested from the original set of 58 schools. Four schools, from whom 242 transcripts were requested, did not comply. A fifth school, from whom another 68 transcripts would have been requested, had ceased to exist in the period since 1980. Of the remaining 4,037 transcripts that were requested of the original set of schools, 3,507 or 86.9 percent were received. Of the 721 students who indicated they had changed schools, transcripts were obtained for 403 of them. Of the transcripts received, more than 99 percent of the data in them was usable.

4. Bias Analysis

Analyses were performed to determine whether the loss of data due to non-responses such as those discussed above might affect inferences that can be made from these data. Since the loss of data was not due to a random process, but to factors beyond our control and in general unknown, there cannot be a definitive answer to the question of bias. At best, comparisons can be made of the distribution of key variables in samples affected and samples not affected by the loss of data.

To examine bias in the data used in the Phase III analyses, certain selected characteristics of the Phase III sample were compared with those of the full Phase II sample, i.e., with the 6770 individuals from whom surveys had been received and/or participation records obtained by the end of their freshman year. In addition, the Phase III sample was compared with the sample used in the Phase II impact analyses. (This latter impact sample was smaller than the full Phase II sample because of the unavailability in Phase II of transcripts for some students.)

For each set of Phase II-Phase III comparisons, distributions on several different characteristics of the samples were examined. The results are summarized by Table 2-1, below; the comparisons on the two sample characteristics depicted in this table are typical of those found for other characteristics examined. Furthermore, these characteristics -- type of host institution (public or private, 2-year or 4-year) and Participation Profile -- are key predictor variables in the impact analyses, and both are available on every member in all the data samples.

Table 2-1 displays the percentage distributions for the selected variables (school type and participation profile) for each of four samples:

1. The full Phase II sample.
2. The Phase II impact sample (specifically, the sample for whom transcript data were available in Phase II, and for whom impact on that outcome variable had been analyzed).

Table 2-1. Percentage Distributions for Institution Type and Participation Profiles for Four Samples

	Full Phase II Sample N=6770	Phase II Sample With 1979-80 Transcripts N=4774	Phase III Sample With 1982-83 Transcripts N=3910	Phase III Sample With 1982-83 Survey N=2747*
Institution Type				
2-year Private	5.2%	5.1%	4.0%	3.7%
2-year Public	30.2	27.8	26.3	25.1
4-year Private	16.0	17.0	16.7	15.1
4-year Public	48.7	50.1	52.9	56.1
	100.0%	100.0%	100.0%	100.0%
Participation Profiles				
Profile 0	12.5%	12.2%	11.4%	14.1%
Profile 1	4.7	4.5	4.3	4.9
Profile 2	9.9	10.0	9.3	9.9
Profile 3	16.9	17.2	16.0	14.3
Profile 4	22.3	22.0	23.5	22.9
Profile 5	1.8	1.3	1.8	2.0
Profile 6	3.1	2.7	3.4	4.0
Profile 7	5.0	5.1	5.6	5.0
Profile 8	5.0	5.7	5.6	3.8
Profile 9	10.9	10.7	10.8	11.2
Profile 10	8.0	8.4	8.3	7.9
	100.0%	100.0%	100.0%	100.0%

*Note: Sample sizes shown in later tables may differ from this number because of item non-responses.

3. The Phase III impact sample for whom transcript data were available in 1983. (Comparison of this sample with Phase II samples helps to determine the extent of potential bias due to non-response to the 1982-83 transcript requests.)

4. The Phase III impact sample for whom follow-up surveys were available in 1983. (Comparison of this sample with Phase II samples helps to determine the extent of potential bias due to non-receipt of the student surveys.)

Examining first the four sample distributions with respect to type of host institution, it will be seen that there is a general trend, with each successive sample constriction, toward larger percentages of students who were enrolled in 4-year public institutions during their freshman year. This is accompanied by a progressive decrease in percentage of students from each of the other three kinds of institutions. These differences are moderate in size and should not have seriously biased the impact analyses reported in Chapter 4, especially as institutional type was used as a control measure in all those analyses. Some bias is possible, however, in the descriptive data presented in Chapter 3. In particular, it is likely that the Phase III follow-up survey data slightly over-estimate the percentage of the original sample members still enrolled in postsecondary institutions in 1982-83. This is because students in 4-year institutions tend to stay enrolled longer than those in 2-year institutions, and 4-year institutions are over-represented in the 1982-83 sample, relative to their proportion of the base-year sample (e.g., 69.6 percent of total 1982-83 sample for the analysis predicting course hours attempted, vs. 64.7 percent of the full Phase II sample).

The distributions of students' base-year Participation Profiles, as depicted in Table 2-1, show only small variations among the four samples summarized. Unlike the variable of institutional type, there are no systematic trends in the distributions with successive sample constrictions, or at least none with any apparent policy relevance. The small variations seen here are typical of those found for most other sample variables examined.

Another approach to the question of possible bias in the Phase III sample is to compare certain characteristics of individuals who returned completed surveys in Phase III with those of individuals who did not return surveys, but from whom a limited amount of information was obtained in the non-respondent telephone survey. Attempts were made to compare these two groups on two variables for which similar questions had been asked in the mail and telephone surveys. One question pertained to the total number of years that individuals had spent in special-services projects. The second asked for how many terms the individuals had been enrolled in postsecondary institutions.

Unfortunately, the response rate to the telephone-survey question about time spent in special-services projects was quite poor (over 35 percent missing data), and there was evidence that many individuals did not understand the question, even when the telephone interviewers attempted to clarify what was meant by special-services projects. As a result, no meaningful comparison of samples on this variable was possible.

With respect to the question about total amount of time enrolled in post-secondary institutions, the mail survey respondents and the non-respondents interviewed by telephone gave almost identical responses: 2.805 years for

the respondents and 2.825 for the non-respondents.

In summary, there is little evidence of systematic non-response bias in Phase III that would have distorted in any substantial fashion the policy-relevant findings of this report.

CHAPTER 3. EXPERIENCES OF SAMPLE MEMBERS SINCE FRESHMAN YEAR

This evaluation began in 1979-80 with a representative sample of freshman students designated by their institutions as eligible for (but not necessarily receiving) SSDS services. The purpose of this chapter is to describe certain aspects of the SSDS-eligible students' educational and work experiences over the three years subsequent to their freshman year. It addresses questions such as, how much additional education did they receive; did they stay in their original institutions or transfer to new schools; and if still in school, how are they handling the financial requirements?

The data reported in this chapter came primarily from the follow-up student survey administered in 1982-83. Other supplemental sources were the telephone interviews of a sample of survey nonrespondents, and the transcripts obtained at the end of the 1982-83 academic year.

A. Educational Attainment

As indicated in Table 3-1, a fairly high proportion (59.7 percent) of all survey respondents were still enrolled in postsecondary institutions in the fall of 1982, the last year of data collection for this study. Furthermore, 51.6 percent of the respondents were full-time enrollees at that time. There is, of course, a steady reduction in proportion of enrollees over time, e.g., 79.2 percent full- or part-time enrollment in the fall of 1980, 67.7 percent in the fall of 1981, and 51.6 percent in the fall of 1982.

While the transcript data (discussed in Chapter 4) suggest that, for some students, much of the enrollment time was spent in repeating courses that

TABLE 3-1. STUDENT STATUS OF SURVEY RESPONDENTS AFTER THEIR FRESHMAN YEAR

Term	Student Status*		
	Not In School	Full-Time Student	Part-Time Student
Summer 1980	1473 (53.7)	645 (23.5)	263 (9.6)
Fall 1980	405 (14.8)	2023 (73.8)	148 (5.4)
Winter 1981	564 (20.6)	1808 (65.9)	148 (6.7)
Spring 1981	547 (19.9)	1837 (67.0)	183 (6.7)
Summer 1981	1523 (55.5)	527 (19.2)	294 (10.7)
Fall 1981	688 (25.1)	1696 (61.8)	162 (5.9)
Winter 1982	824 (30.0)	1479 (53.9)	165 (6.0)
Spring 1982	785 (28.6)	1545 (56.3)	180 (6.6)
Summer 1982	1546 (56.4)	493 (18.0)	289 (10.5)
Fall 1982	836 (30.5)	1415 (51.6)	223 (8.1)

*The first number in each cell is the number of respondents selecting the category indicated. The second figure, shown in parentheses, is the percentage that this number represents of the 2576 responses.

had been dropped, or in changing from one area of major to another without necessarily progressing substantially toward an academic degree, the survey results nevertheless indicate an active and persistent effort on the part of many of the SSDS-eligible students to advance in their studies. Furthermore, of those students enrolled at any given time, most were in four-year institutions, as shown below in Table 3-2. (In this table, the denominator for each percentage is the total number of students who stated in the Phase III survey that they were enrolled during the academic term in question; this denominator, as shown in the preceding table, varies from term to term.)

It has been SDC's experience at the public school level that disadvantaged children with backgrounds similar to those of the typical SSDS-eligible student are often quite mobile, moving from one school to another several times before reaching high school age. One question of interest in the SSDS study was whether a similar problem might be found among the sample postsecondary-level students. An item in the Phase III survey asked whether the institution currently or most recently attended was the same one that the respondents had attended in 1979-80. Of the 2,697 individuals who answered this question, 30 percent stated that they had changed institutions, while 70 percent indicated they had not transferred. Thus, the mobility of the SSDS-eligible students, in terms of institutional transfers, appears only moderately high.

B. Reasons for Leaving Higher Education

All respondents who stated that they were no longer enrolled in any postsecondary institutions at the time of the Phase III survey were asked to indicate why they had left school. For those respondents, Table 3-3 shows the percentages

TABLE 3-2. PERCENTAGES* OF STUDENTS ATTENDING DIFFERENT TYPES OF INSTITUTIONS, BY TERM

Term	Type of Institution		
	Vocational School	Two-Year School	Four-Year Or Graduate School
Summer 1980	4.5	38.7	56.8
Fall 1980	3.2	26.5	70.3
Winter 1981	4.2	25.6	70.2
Spring 1981	4.0	25.1	70.9
Summer 1981	7.5	28.6	63.9
Fall 1981	5.4	18.4	76.2
Winter 1982	5.7	16.9	77.4
Spring 1982	5.2	15.7	79.1
Summer 1982	9.2	17.8	73.0
Fall 1982	5.0	14.7	80.3

*Each figure represents the percentage of all students enrolled in the designated term who stated that they attended the type of school indicated.

TABLE 3-3. NUMBERS AND PERCENTAGES OF RESPONDENTS DESIGNATING VARIOUS FACTORS AS MOST IMPORTANT OR SECOND MOST IMPORTANT REASON FOR LEAVING SCHOOL

Reason	Most Important	Second Most Important
Poor Health	51 (5.7)	68 (7.6)
Need of Money	257 (28.7)	138 (15.4)
Poor Grades	100 (11.1)	107 (11.9)
Unclear Goals	159 (17.7)	133 (14.8)
Took a Job	134 (14.9)	157 (17.5)
Graduated	160 (17.8)	59 (6.6)
Family Problems	105 (11.7)	82 (9.1)
Got Married	76 (8.5)	92 (10.3)
Joined Military	19 (2.1)	65 (7.2)
Courses Too Difficult	28 (3.1)	61 (6.8)
Courses Not Relevant	39 (4.3)	95 (10.6)
Parents' Wishes	13 (1.4)	58 (6.5)
Expelled/Suspended	28 (3.1)	64 (7.1)
Other Reasons	112 (12.5)	36 (4.0)

*The first number in each cell represents the number of respondents (out of a total of 897) selecting the designated factor as the most important or second most important reason for leaving school. The figure in parentheses is the percentage that that number represents of the total 897 respondents.

selecting various explanations listed in the survey questionnaire as the respondents' first or second most important reason for leaving school. All percentages in the table are based on a total of 897 respondents who reported themselves to have left school.

Table 3-3 indicates that the most important factor in the students' leaving school, at least as perceived by the students, was Need of Money (selected as the first or second most important reason by 44.1 percent of the respondents). Following fairly close behind in importance were Unclear Goals* (selected by 32.5 percent of the respondents), and Took a Job (32.4 percent).

C. Participation In and Helpfulness of Special Services

Phase III sample members were asked to indicate how frequently they had received different types of SSDS-like special services since their freshman year. They were then asked how helpful they had found each type of service. (The data on helpfulness are presented here as interesting descriptive information on the students' perceptions, but are not used in Chapter 4 as outcome measures for the impact analyses, as the transcript data appear to offer superior and more objective measures for this latter purpose.)

Table 3-4 summarizes the data on extent of student use of special services. Each cell of the table shows the number and percentage of survey respondents who indicate a particular level of use of the designated type of service. It will be seen that the services most commonly received after the freshman year were counseling and tutoring. (As noted in Chapter 1, these were also among the services most commonly provided in the students' freshman year.) Well

*The exact wording of this reason in the survey was "I was uncertain about my career goals or I changed my career goals."

TABLE 3-4. NUMBERS AND PERCENTAGES (IN PARENTHESES) OF RESPONDENTS REPORTING DIFFERENT LEVELS OF USE OF VARIOUS SPECIAL SERVICES SINCE THEIR FRESHMAN YEAR

Type of Service	Frequency of Use of Service			
	Never Used	Used Sometimes	Used A Lot	No Response
Tutoring by Faculty	1191 (43.4)	1213 (44.2)	262 (9.6)	77 (2.8)
Counseling	1116 (40.7)	1204 (43.9)	342 (12.5)	81 (3.0)
Basic Skills, Reading	1881 (68.6)	579 (21.1)	187 (6.8)	96 (3.5)
ESL (English as Second Language) Instruction	2373 (86.5)	167 (6.1)	93 (3.4)	110 (4.0)
Basic Skills, Math	1939 (70.7)	532 (19.4)	168 (6.1)	104 (3.8)
Study Skills	1772 (64.6)	709 (25.8)	165 (6.0)	97 (3.5)
Orientation	1456 (53.1)	1010 (36.8)	182 (6.6)	95 (3.5)
Help in Finding Job	1568 (57.2)	816 (29.7)	261 (9.5)	98 (3.6)
Field Trips	1919 (70.0)	588 (21.4)	141 (5.1)	95 (3.5)
Aid for Handicapped	2500 (91.1)	88 (3.2)	56 (2.0)	99 (3.6)
Aid in Native Language	2467 (89.9)	108 (3.9)	63 (2.3)	105 (3.8)

over half the Phase III survey respondents indicated that they received "some" or "a lot" of tutoring and counseling after the spring of 1980. Almost half also reported receiving general orientation assistance, and help in finding a job.

Table 3-5 shows the numbers and percentages of Phase III survey respondents who indicated that they found the various types of special services to be "not helpful," "somewhat helpful," or "very helpful." Only those respondents who reported that they used a given type of service were considered in calculating the percentages shown in the table entries for that service.*

As shown in Table 3-5, the services found helpful by the largest percentages of students who reported receiving those services were Tutoring by Faculty, Study Skills Instruction, and Instruction in Reading or Writing.

D. Employment Status

Sample members were asked whether they were employed at the time of the Phase III survey (1982-83), and what their hourly wage was. As it seemed likely that employment status would be highly related to respondents' student status (e.g., a student would probably be less likely to hold a job), the employment and student status data were analyzed jointly. The results are summarized below in Table 3-6. Overall, about 60 percent of the respondents were working at the time they received the Phase III survey, with almost 31 percent holding full-time jobs.

*In some cases, the total number of respondents shown in Table 3-5 as having rated the helpfulness of a certain type of service differs slightly from the number shown in Table 3-4 as having received that service. The two tables are based on two different items in the survey, and differences in the frequencies shown reflect differences in the number of non-respondents to sections of those two items.

TABLE 3-5. NUMBERS AND PERCENTAGES OF RESPONDENTS REPORTING DIFFERENT LEVELS OF HELPFULNESS OF SPECIAL SERVICES*

Type of Service	Helpfulness of Service		
	Not Helpful	Somewhat Helpful	Very Helpful
Tutoring by Faculty	56 (3.7)	670 (44.7)	772 (51.5)
Counseling	117 (7.7)	730 (47.8)	681 (44.6)
Reading, Writing	46 (5.9)	370 (47.2)	368 (46.9)
ESL (English as Second Language) Instruction	22 (8.3)	154 (58.1)	89 (33.6)
Mathematics	48 (6.7)	348 (48.3)	324 (45.0)
Study Skills	50 (5.6)	482 (54.1)	359 (40.3)
Orientation	94 (8.1)	659 (57.0)	403 (34.9)
Finding Job	230 (20.9)	483 (43.9)	386 (35.1)
Field Trips	50 (6.9)	384 (52.9)	292 (40.2)
Aid for Handicapped	19 (12.1)	76 (48.4)	62 (39.5)
Aid in Native Language	28 (16.0)	87 (49.7)	60 (34.3)

*For each type of service, percentages are based on total number respondents claiming to have used that service.

Table 3-6. Numbers and Percentages of Students and Non-Students Reporting Different Work Statuses

Work Status	Student Status: In School	Not In School	Total
Not Working	717 (45.0)	268 (30.1)	985 (39.7)
Working Part-Time	641 (40.2)	500 (56.2)	736 (29.6)
Working Full-Time	236 (14.8)	121 (13.6)	762 (30.7)
TOTAL	1594 (100.0)	889 (100.0)	2483 (100.0)

As expected, the percentage of respondents holding jobs was smaller for students (55.0 percent) than for non-students (69.8 percent). Surprisingly, however, a slightly larger percentage of students than of non-students held full-time positions (14.8 percent versus 13.6 percent). This latter finding is perhaps consistent with the report of many non-students (noted in Section B of this chapter) that their primary reason for leaving school was lack of adequate money. That is, the financial needs of many of the students may have forced them to seek full-time work. At the same time, it seems highly probable that full-time employment must have interfered to some extent with study efforts.

The 1982-83 survey also asked those individuals who said they were currently employed to indicate their level of pay. Table 3-7 summarizes the responses, again broken down by the respondents' student status. It will be seen that the pay rates were generally low, with over 70 percent of the respondents earning less than $6.00 per hour and almost 40 percent earning under $4.00 per hour. Not surprisingly, respondents who were still enrolled in postsecondary institutions tended to have lower hourly wage levels than those who had left

school (e.g., 48.0 percent of "In School" respondents under $4.00 compared with 26.1 percent of "Not in School" respondents). This probably can be interpreted as indicating that many students took temporary jobs that did not pay well, but that could be arranged conveniently around their class hours.

Table 3-7. Numbers and Percentages of Students and Non-Students Reporting Different Hourly Wages

Hourly Wage	Student Status		
	In School	Not In School	Total
Less Than $4	416 (48.0)	159 (26.1)	575 (38.9)
$4 - $6	303 (34.9)	265 (43.4)	568 (38.5)
$6 - $8	91 (10.5)	103 (16.9)	194 (13.1)
$8 - $10	34 (3.9)	42 (6.9)	76 (5.1)
$10 - $12	14 (1.6)	26 (4.3)	40 (2.7)
$12 or Greater	9 (1.0)	15 (2.5)	24 (1.6)
TOTAL	867 (100.0)	610 (100.0)	1477 (100.0)

E. Sources of Financial Support for Schooling

Several questions in the Phase III survey asked about how the respondents were currently supporting the expenses for their postsecondary education. The respondents were asked to answer these questions only if they were currently enrolled at the time of the survey. This reduced the total number of respondents who could legitimately have answered the financial items to 1850.

Use of personal savings to help pay for education costs was reported by 864 students, or 58.7 percent of the 1471 students who responded to this item. The dollar amounts of savings reported used in the current school term are

summarized in Table 3-8. Almost three-fourths (74.6 percent) of the respondents indicating some use of personal savings expended less than $1,000 during the term, and over half used less than $500. Some of the amounts shown seem surprisingly high, however (e.g., five students reported use of savings of over $9,000), and it is possible that some respondents misunderstood the question or gave exaggerated answers.

TABLE 3-8. NUMBERS AND PERCENTAGES OF STUDENTS REPORTING USE OF DIFFERENT LEVELS OF PERSONAL SAVINGS TO PAY FOR EDUCATION COSTS OF CURRENT TERM

Range of Savings Used	Frequency	Percentage
Less than $500	410	50.9
$ 500 - $1,000	191	23.7
$1,000 - $2,000	111	13.7
$2,000 - $3,000	39	4.8
$3,000 - $4,000	18	2.2
$4,000 - $5,000	18	2.2
$5,000 - $6,000	5	0.6
$6,000 - $7,000	3	0.4
$7,000 - $8,000	5	0.6
$8,000 - $9,000	0	0.0
Greater than $9,000	5	0.6
TOTAL	805	100.0

Of 1,470 students who responded to a question about the use of educational loans to help pay educational expenses for the current term, 678 or 46.1 percent answered in the affirmative. The distribution of sizes of those loans is shown below in Table 3-9. Almost 30 percent indicated loan amounts under $1,000, while 80 percent indicated amounts under $3,000. Again, some of the amounts seem improbably large for a single term (e.g., 12 students indicating loans of over $9,000); possibly they were reporting loan amounts for a whole academic year rather than for a single term.

TABLE 3-9. NUMBERS AND PERCENTAGES OF STUDENTS REPORTING USE OF DIFFERENT LEVELS OF LOANS TO PAY FOR EDUCATION COSTS OF CURRENT TERM

Range of Loans	Frequency	Percentage
Less than $1,000	189	29.9
$1,000 - $2,000	138	21.8
$2,000 - $3,000	180	28.4
$3,000 - $4,000	45	7.1
$4,000 - $5,000	26	4.1
$5,000 - $6,000	9	1.4
$6,000 - $7,000	8	1.3
$7,000 - $8,000	23	3.6
$8,000 - $9,000	3	0.5
Greater than $9,000	12	1.9
TOTAL	633	100.0

Of the 1,465 students who responded to a survey question about whether they had received a grant or scholarship during the current term, 869 or 59.3 percent answered "yes." The sizes of those grants/scholarships are shown in Table 3-10, which indicates that almost 70 percent were far less than $1,500, with almost a fourth under $500. Eighteen of the respondents, however, reported scholarships or grants of over $5,000.

TABLE 3-10. NUMBERS AND PERCENTAGES OF STUDENTS REPORTING RECEIPT OF DIFFERENT LEVELS OF SCHOLARSHIPS OR GRANTS

Range Of Scholarships/Grants	Frequency	Percentage
Less than $500	195	24.6
$ 500 - $1,000	219	27.6
$1,000 - $1,500	132	16.6
$1,500 - $2,000	94	11.8
$2,000 - $2,500	40	5.0
$2,500 - $3,000	34	4.3
$3,000 - $3,500	18	2.3
$3,500 - $4,000	28	3.5
$4,000 - $4,500	5	0.6
$4,500 - $5,000	11	1.4
Greater than $5,000	18	2.3
TOTAL	794	100.0

Students were also asked how much financial help they were getting for the current school term from their parents or other relatives. The distribution of amounts reported is shown in Table 3-11. Of the 1,464 responding students, 637 or 43.5 percent reported no family financial assistance. Of the students who did receive some family assistance, the median amount indicated was around $400.

TABLE 3-11. NUMBERS AND PERCENTAGES OF STUDENTS REPORTING RECEIPT OF DIFFERENT LEVELS OF FINANCIAL AID FROM FAMILIES

Range Of Family Assistance	Frequency	Percentage
None	637	43.5
$ 1 - $ 99	115	7.9
$ 100 - $ 199	121	8.3
$ 200 - $ 399	162	11.1
$ 400 - $ 599	120	8.2
$ 600 - $ 799	70	4.8
$ 800 - $ 999	46	3.1
$1,000 or Greater	193	13.2
TOTAL	1,464	100.0

Asked about their access to several other potential sources of funds to help pay for education costs, the students responded as summarized in Table 3-12. (Different numbers of students responded to the various questions, so that percentage figures for different funding sources are calculated on different denominators.) Of this group of funding sources, by far the most commonly used is the Pell Grant Program (54.4 percent of respondents). Other frequently reported sources are Federal Guaranteed Student Loans (26.1 percent) and work-study program participation (26.9 percent).

TABLE 3-12. NUMBERS AND PERCENTAGES OF STUDENTS REPORTING ACCESS TO DIFFERENT SOURCES OF FINANCIAL HELP IN MEETING EDUCATION EXPENSES

Source	Reported Access		
	Yes	No	Total
Federal Guaranteed Student Loan	358 (26.1)	1,012 (73.9)	1,370 (100.0)
National Direct Student Loan	300 (22.8)	1,017 (77.2)	1,317 (100.0)
Pell Grant	799 (54.4)	671 (45.6)	1,450 (100.0)
Supplemental Educational Appor. Grant	259 (21.1)	969 (78.9)	1,228 (100.0)
Work-Study Participation	399 (26.9)	1,084 (73.1)	1,483 (100.0)

F. Summary

Overall, the data indicate that many of the sample members, who were designated in their freshman year as SSDS-eligible by reason of their deprived educational, cultural, or economic background, were persistent in their efforts to obtain postsecondary education, with almost 60 percent of them still enrolled three years after the initial survey and over half enrolled full time. Most of the respondents indicated they had received at least some SSDS-type special services beyond their freshman year, with counseling and tutoring being the most commonly reported services.

While not the only consideration, economics was an important factor determining whether the sample members were still enrolled or had left school. Those still enrolled had called on a wide variety of financial resources to help pay their education expenses. Over half had jobs, and almost 15 percent had full-time positions, in addition to their school work, but most of these jobs paid poorly, with almost half the working students being paid at or near the minimum wage level. Other fairly common sources of funding for the students included personal savings, educational loans, grants or scholarships (including Pell Grants), and family assistance.

CHAPTER 4. EFFECTS ON STUDENTS OF PARTICIPATION IN SPECIAL SERVICES

This chapter describes the results of analyses performed to determine the effects of SSDS and SSDS-like services on several student outcome measures obtained in 1983. The analyses were similar in purpose and design to those conducted in Phase II, but dealt with longer-term program effects covering several years of the students' academic careers, rather than being limited to the freshman year. The primary outcome variables that are examined in these analyses are the students' persistence in their college work; their intensity of postsecondary work, defined as the number of course units attempted; their progress, defined as the number of course units completed; and their performance in the courses taken, defined as the students' grade point average. In addition, the chapter reports on relationships between students' degree of participation in special services, and their future job plans.

The major categories of input or predictor variables discussed in this chapter are the types and amounts of student participation in project activities; selected variables reflecting the students' personal backgrounds and family characteristics; data on financial support received by the students; SSDS project characteristics; and characteristics of the institutions hosting the SSDS projects. For this chapter, the data on students' participation in project services are based entirely on records completed by project staffs in the students' freshman year (1979-80), as these data are far more detailed and complete than service-delivery data collected from the students in the 1983 follow-up survey. Analyses based on the post-freshman data are discussed separately in Chapter 5.

All of the impact analyses reported here use standard linear regression models to determine the effects of the input variables. This is a change from the procedure used for analysis of student persistence in the Phase II analyses. In those earlier analyses, a logistic regression model was employed because the persistence measure was dichotomous, i.e., a student was or was not still enrolled at the end of the 1979-80 academic year. As will be indicated below, the measures of persistence available in Phase III are more appropriately considered as continuous variables. Hence the general linear regression model is appropriate for all of the analyses.

Each of the analyses reported below used the individual student as the unit of analysis, thereby taking fullest advantage of the detailed data available. Independent variables such as student ethnicity, student dependency status, parental income, type of host institution, the institution's enrollment, and levels of costs (tuition and fees), were used as conditioning variables in the analyses. That is, they represent variables whose possible effects on the outcomes were taken into account statistically, but which are not generally under control of the projects and therefore are not among the predictor variables of greatest policy interest. Those higher priority policy questions center on the impact of variables representing the amount and types of SSDS and SSDS-like services on the student outcomes. The conditioning variables were included to give greater realism to the prediction models and to identify the major components that jointly determine student outcomes.

The remainder of this chapter is organized into four sections. Section A defines the outcome and predictor measures used in these impact analyses. The main section, B, gives results of analyses that examined program impact

on student outcome measures obtained from transcripts collected at the end of the 1982-83 year. Section C describes attempts to determine program impact on job plans, based on data from the follow-up student survey conducted in 1982-83. The final section, D, summarizes the general trends found in these impact analyses.

A. VARIABLES USED IN THE IMPACT ANALYSES

1. Outcome Variables

The major outcome variables used in the impact analyses were four measures of the students' academic work, derived from transcripts obtained toward the end of the 1982-83 academic year. Transcript-derived outcomes included: (1) Persistence, an index of how long the student remained enrolled during study period, (2) Intensity of the students' efforts, as measured by total credit hours of course work attempted, (3) Progress, as measured by total credit hours completed during the study, and (4) Performance, the grade point average for the period.

Data on student persistence were obtained from the student transcript. The persistence variable was constructed by assigning different scale values to different academic terms (semesters or quarters) in which students were shown as most recently enrolled. Thus, a value of 1 was given for the Fall of 1979, a value of 2 for the Winter of 1979-80, and so on through a value of 15 for the Spring of 1983.

The Intensity and Progress variables were taken directly from the transcripts as the number of credit hours attempted and the number completed, respectively. The performance measure was taken from grades shown in the transcripts, with conversions to a common scale.

The second set of outcome variables consisted of three student-derived variables related to the students' educational and career aspirations and expectations. The first of these, "Educational Desires," was based on a survey question asking what was the highest educational attainment (e.g., academic degree) the students wished to achieve. A second variable, "Educational Expectations," represented the highest educational attainment expected by the students. "Career Plans," the third variable, represented the type of work the students planned to be doing five years after they completed their education. As discussed later in this chapter, the student-reported outcome measures were much less meaningful and complete than the transcript-based data, and proved of little use for analytic or interpretive purposes.

2. Predictor Variables

With the large amount of data collected (primarily in the 1979-80 year) on students, projects, and institutions, it would have been possible to analyze many different items of information in relation to the outcome measures. However, any such wholesale use of predictor variables in the impact analyses would have led to difficulties in interpreting the findings, and would probably have produced many spurious relationships among variables on the basis of chance alone. For these reasons, the number of predictor variables examined was constrained by focusing on variables that appeared to have particular policy relevance, and by combining individual data elements or items into composite variables. The 11 main predictor variables used in this Phase III impact analyses are the same as those used in the Phase II analyses.

The predictor of greatest potential interest in this study was the 11-value categorical variable, Participation Profiles. This variable summarized much

of the available information about the types and amounts of SSDS and SSDS-like services actually received by the students. More specifically, it combined extensive data of two general types: data on services given in 1979-80 to participating students by the projects, as recorded by staff members in the Participation Records, and data reported by the students themselves (in the 1979-80 Student Survey) concerning the types of SSDS-like services they had received in the host institutions. Basically, each student was assigned a set of indices indicating whether that student had received any project counseling, whether he/she had received more than one hour of project tutoring, and whether he/she had received more than one hour of project group instruction. Similar indices, for SSDS-like services, were developed from the Student Survey data. When combined, these six indices yielded a 64-category classification of all possible profiles. (Six indices, each with two possible values equals 2^6 or 64 combinations.) However, many of these profiles were represented by only a few students; for this reason, and to simplify the analyses, logically similar and sparsely-represented profiles were combined, resulting in a total of 11 categories or profiles as summarized below in Table 4-1. More detailed information about the derivation and interpretation of the Participation Profiles is given in Chapter 7 of the Phase II report.

Three other predictor variables were based on characteristics of the host institutions. The variable, Institution Type, represented both the institution's type of control (public or private) and the highest level of offering (2-year versus 4-year or higher). The other two institutional variables were Cost (yearly tuition plus fees), and Institution Size (total student enrollment).

Table 4-1. Summary of Project Services and Additional Types of Outside Services Associated With Each Performance Profile

Profile	Types of Project Services	Additional Outside Services
0	None	None
1	None	Instruction (Group or Tutoring)
2	None	Counseling
3	None	Group Instruction and Counseling
4	Counseling	Group and Tutoring Instruction
5	Instruction (Group and/or Tutoring)	None
6	Instruction	Counseling
7	Group Instruction and Counseling	Tutoring Instruction
8	Group Instruction and Counseling	None
9	Tutoring and Counseling	Group Instruction
10	Group Instruction, Tutoring, and Counseling	None

Individual project characteristics were represented by two predictor variables: a Budget variable computed by dividing total project funds by the total number of students served by the project; and a Project Acceptance scale derived from two items in the Project Director Interview. Those items asked how well the students served by the project were regarded by the regular students and the regular faculty at that institution.

Four additional predictor variables, derived from the base-year Student Surveys, represented characteristics of the students. Student Ethnicity had three categories: Black, White, and other minorities (American Indian, Hispanic, and Asian). Student Incentive was the sum (in dollars) of the grants and any tuition or fee waivers the student had received, as determined in the second Phase II student survey. Family Income was the amount of annual income the student reported for his or her parents or guardians.

The final predictor variable used in analyses reported in this chapter was a three-category index of the students' Dependency Status. The first category, called for convenience the "independent student," included all students who were married, all students who were living in their own homes or apartments, and all students who were over 21 and not living with their parents. All remaining students were divided into two "dependent student" groups; one group consisted of dependent students from low-income families, and the other of dependent students from higher-income families.

B. ANALYSES OF PROGRAM IMPACT ON STUDENTS' ACADEMIC PERSISTENCE, INTENSITY OF EFFORT, PROGRESS, AND PERFORMANCE

This section presents the results of impact analyses dealing with the effects of program services on the academic efforts and achievements of SSDS-eligible

students, as determined four years after the inception of the study. It first examines program impact on the students' persistence in continuing their postsecondary education. In the earlier report covering the 1979-80 academic year, persistence was considered the most meaningful outcome measure, because of the relatively short time span involved in the Phase II data collection. It was felt that, within the students' freshman year, any effects of participation in special services might not have had time to influence the number of courses completed or the grades achieved to any significant extent. This concern was compounded by the difficulty in establishing comparability of transcripts from different institutions, with respect to records of course units attempted and completed, and grades achieved. By contrast, persistence (defined in Phase II as being enrolled or not being enrolled at the end of the freshman year) was felt to be a clear, unequivocal measure, and one that might be influenced by special services within a single year. In the present (Phase III) analyses, by contrast, while some question still exists about the inter-institutional comparability of grades and "course units attempted," it appears reasonable that the multi-year time span represented by the new measures of those outcome variables should be susceptible to program impact. Thus, in the impact results reported here, the measures of academic effort, progress, and performance are considered equal in relevance and importance to that of persistence.

1. Persistence

The transcript-based persistence measure selected for use in the impact analyses reported here is defined as the last semester in which a student was enrolled in a postsecondary institution. Since the coding of this variable yields a measure that approximates a continuous scale, the ordinary least squares regression is an appropriate model for the analysis.

Table 4-2 summarizes the results of the final analysis of program impact on student persistence, i.e., on the last semester registered. In this table, the percentage of unique variance explained (right-hand column) is a value indicating how much change there would be in the amount of criterion variance accounted for if the particular independent variable were the last one included in the equation. The first entry in this table, as in all others presented in this chapter, is labeled the Intercept or Baseline condition. Since all of these tables display the results of regressions that include categorical predictor variables as well as continuous variables, this intercept value represents jointly the zero level of the continuous variables and the "null" category for each of the classificatory variables in the equation.* Thus in Table 4-2, the Intercept/Baseline condition shows the predicted persistence (last school term attended) for a student who originally was enrolled in a public four-year college, who received no SSDS or SSDS-like services, who is White, who is from a family with a higher than average income, and who was living at home or in a dormitory during the 1979-1980 academic year.

*It should be noted that the "null" categories were arbitrarily defined, and are not intended to imply a superior or inferior condition.

Table 4-2. Linear Regression Predicting Academic Persistence (N=2676)

VARIABLES	Regression Coefficient	Unique Variance Explained (Percentage)
Baseline Condition (Intercept)	8.78*	
Private 2-Year	-2.307	0.7
Public 2-Year	-1.912	2.6
Non-Academic Services	0.034	0.3
Profile 6	1.169	0.2
Student Ethnicity		
Other Minority	-0.685	0.3
Incentives ($1000)	0.811	1.8
Family Income ($10,000)	0.600	0.5
Project Budget ($100)	-0.101	0.1
Institutional Enrollment	0.006	0.6
Dependent Status (Low Income, Live at Home or in Dormitory)	0.441	0.1
$R^2 = 0.077$		

*Intercept represents a student originally enrolled in a public 4-year college, who received no SSDS or SSDS-like services, who is White and from a family with higher than average income, and who was living at home or in a dormitory during 1979-80.

Further, this "baseline" student would be represented by zero values for the continuous variables: Incentives, Family Income, Project Budget, and host institutions' enrollment. For this arbitrarily defined (and highly improbable) combination of characteristics, the data yield a predicted persistence value of 8.78, reflecting a final school registration in the Fall of 1981.

Of first importance to this study are the impacts shown for the SSDS and SSDS-like services (Participation Profiles and the Non-Academic Services). These results indicate a significant weight (regression coefficient) for only one of the profiles -- Profile 6* -- and for the amount of Non-Academic Services. In both instances the regression coefficients are positive. This indicates that students who received the combination and level of SSDS services defined as Profile 6 were likely to stay in school longer than were students who received no SSDS or SSDS-like services. It also indicates that receipt of more of the Non-Academic Services was associated with an increased likelihood of the students' persisting in postsecondary schooling. However, the relatively low values for the percentages of the outcome variance accounted for by the profile and Non-Academic Services (0.2 and 0.3, respectively) show that these two factors are less effective predictors than are most of the other factors represented in this model.

*The service components of all Participation Profiles are summarized in Table 4-1.

It is difficult to interpret why only Profile 6 of the academic-services should have been related to persistence, since several other profiles (see Table 4-1) also include instructional and counseling services. In the freshman-year impact analyses of Phase II, Profile 6 was associated with greater persistence, but so were Profiles 9 and 10. Further attempts to "make sense" of the participation profiles that did and did not aid students in their postsecondary endeavors will be made in later sections of this chapter, in connection with other student outcome measures.

The predictor variables indicating the type of institution explain the largest amount of the explained variance, jointly accounting for approximately 3.3 percent of the total of 7.7 percent explained by the full model. The negative coefficients indicate that students who were initially enrolled in 2-year schools, either public or private, were less likely to continue with their schooling than were those students in 4-year public schools. This is hardly surprising since, as a general rule, one would expect students who plan to complete more years of postsecondary work to enroll in 4-year rather than 2-year institutions. Of the remaining factors that show significant impact on the persistence outcome, the economically oriented ones -- the Incentives, Family income, and Students' Dependency Status -- have the most important influence. Table 4-2 shows greater persistence on the part of students who receive financial support in the form of incentives, scholarships or loans; students from families with higher incomes, and financially dependent students staying at home or in a dormitory. These findings are highly consistent with those reported in Phase II based on the 1979-80 data, and generally reflect the importance of students' financial status and background.

The student ethnicity variable also shows an association with persistence. Here, the category indicating that the student is a member of a minority group, but is not Black, is negatively related to persistence, i.e., non-Black minority students are less likely to continue with their postsecondary education than are White students. No significant relationship between ethnicity and persistence had been found in the earlier, Phase II analyses based on students' freshman data.

The variable designating SSDS projects' per-student budget shows a negative relationship to persistence; students originally enrolled in projects with higher per-pupil budgets were less likely to persist than were students in projects with smaller budgets. Also, students who were originally in larger postsecondary institutions were likely to persist longer in their schooling. Both of these relationships are quite weak. (In the earlier Phase II analyses, neither per-pupil budget nor institutional size was related to persistence.) One possible explanation of the institutional-size finding is that larger schools have more varied curriculum offerings, so that students in those schools were able to find more courses that they considered useful and worth staying in school for.

2. Students' Academic Intensity and Progress

Table 4-3 displays the statistics from the final regressions on the intensity of effort and the progress criteria. Again, ordinary least squares regression was used for the analyses. Since the predictor variables examined in these analyses were the same, and the set of significant variables are largely the same, the two analyses are discussed together.

Table 4-3. Linear Regression Predicting Academic Intensity and Progress (N=2676)

VARIABLES	Intensity		Progress	
	Regression Coefficient	Unique Variance Explained (Percentage)	Regression Coefficient	Unique Variance Explained (Percentage)
Baseline Condition (Intercept)*	70.281		61.039	
Private 2-year	-29.503	0.1	-15.601	1.5
Public 2-year	-20.256	0.2	-29.785	1.0
Profile 1	9.053	0.1	10.133	0.1
Profile 4	7.983	0.4	7.939	0.4
Profile 5	-	-	12.617	0.1
Profile 6	16.457	0.4	18.394	0.5
Profile 7	- 8.920	0.2	-	-
Non-Academic Services	0.492	0.5	0.301	0.2
Black	5.017	0.2	-	-
Other Minority	- 5.610	0.2	- 6.430	0.3
Dependency Status (Dependent, at Home or in Dormitory)	-	-	- 4.084	0.1
Incentives ($1000)	8.170	1.8	9.200	2.3
Family Income	4.095	0.3	4.8443	0.5
Project Acceptance	- 0.900	0.1	-	-
Project Budget	1.205	0.2	-	-
Inst. Enrollment	0.035	0.2	- 0.043	0.4
Tuition & Fees	- 0.360	0.2	0.258	0.1
	R^2 = .099		R^2 = .092	

*Intercept represents a student originally enrolled in a public 4-year college, who received no SSDS or SSDS-like services, who is White and from a family with higher than average income, and who was living at home or in a dormitory during 1979-80.

Of first importance in these analyses, as with the analysis of persistence, are the impacts of independent variables indicating students' receipt of SSDS and SSDS-like services. The equations for both outcome variables show patterns of weak but positive associations between moderate levels of SSDS and SSDS-like services, and the outcome measures. In the equation predicting the intensity of the students' efforts (total credit hours attempted), the indicators for Profiles 1, 4, and 6, and for the Non-Academic Services have significant positive coefficients. Together, these four indicators of SSDS services uniquely account for 1.4 percent of the total of 10.0 percent criterion variance accounted for in the equation. Surprisingly, the indicator for Profile 7 shows a small but significant negative association with the outcome.

A similar pattern is seen in the equation predicting academic progress (total credit hours completed). Here Profiles 1, 4, 5, and 6, and the indicator of Non-Academic Services have positive coefficients. As with the findings for the persistence outcome measure, it is difficult to interpret why certain academic-services profiles are associated with greater student intensity and progress, while others show no impact or are negatively associated with the outcome measures. Furthermore, these results are quite different than those found in Phase II for the freshman-year outcome measures. In that earlier year, almost all of the service profiles were related in a positive direction to both intensity and progress. There seems to be no systematic relationship between outcomes and specific types of services. However, it should be noted that the profiles positively associated in Phase III with the student outcomes generally represent intermediate levels of services; that is, they usually include one or two categories of services, but not sizeable amounts of all or most types of services. It is possible that these intermediate levels represented

some sort of "best fit" for the SSDS-eligible students, whereas the maximum combinations of services (as represented by Profiles 7 through 10) were less effective with regard to the number of courses attempted and completed. A somewhat related hypothesis is that the most concentrated combinations of services were focused on students who were obviously experiencing serious difficulties in their college work, and who were least likely to progress as far in their studies. These explanations do not account for the difference in findings between the base year (1979-80) and the follow-up year (1982-83), but perhaps the hypothesized factors of selection and inhibition had not had time to manifest themselves in the students' freshman year.

While it may be difficult to see a consistent and logical pattern in the findings related to academic-services profiles, the trend regarding Non-Academic Services appears highly consistent and straightforward. Students who received more hours of orientation, assessment, referrals, and cultural services tended to show greater persistence, greater intensity of academic efforts, and greater academic progress.*

Because of the consistency of these findings related to the Non-Academic Services, it may be useful to review briefly the base-year findings regarding

*"Orientation" refers here to project activities undertaken to familiarize entering students with certain aspects of college requirements and resources. "Cultural services" include project efforts to expand students' awareness of their own or other cultures, using such techniques as guest speakers, inter-cultural projects, etc. "Assessment" refers to efforts, generally by a counselor, to analyze students' strengths and weaknesses. "Referrals" include suggestions that students seek personal or academic assistance from other designated resources.

the frequency and intensity of delivery of these services. The Phase II report indicated (p. 6-26) that while 79.3 percent of the projects offered orientation services, and while an average of 35.6 percent of project students received such services, the mean number of orientation hours received by participating students was only 1.5. Similarly, although 26.5 percent of all project students received cultural services, the mean number of hours was only 4.5. (Assessment and referral hours were aggregated under counseling activities in the Phase II report and not analyzed separately.) The Phase II report commented on the small number of hours involved, but noted the possibility that the types of services subsumed in the present report under the heading Non-Academic Services, might be "much more important than the small hour figures would indicate" (p. 6-28). It went on to say that, "Some Project Directors believe ... that even a small amount of time in orientation or counseling can make a major difference in how a student perceives and reacts to the campus environment, and can thereby greatly improve that student's motivation and study habits" (p. 6-26). The Phase III findings seem to favor this belief. While the new outcome data do not support an interpretation of strong effects of the Non-Academic Services (in terms of percentage of variance accounted for), the effects are consistently positive across three different outcome measures. (The Non-Academic Services were not considered in this form in the impact analyses conducted in Phase II, so it is not possible to compare results directly across the two phases.)

The equations displayed in Table 4-3 also show similar patterns of association between the two different outcome measures (intensity and progress) and the conditioning variables that represent the types of host institutions.

Here the indicators of the 2-year institutions, both private and public, show negative -- and for these data relatively strong -- associations with both outcome measures. These are not surprising findings, as it is evident that, on the average, more credits may be attempted and successfully completed by students in 4-year institutions than by students who do their work at 2-year schools.

The two equations predicting intensity and progress, like the earlier equation predicting persistence, show positive associations of the outcomes with economic background and resources of the student. Both equations in Table 4-3 show positive relationships of the outcome measures with the students' access to and use of various forms of financial assistance. The measure of financial resources (labelled "Incentives") is the strongest predictor (in terms of unique variance explained) in the equations for both academic progress and academic intensity. The other basic economic indicator, a variable measuring the students' family income, also shows positive associations with the outcome measures. These relationships, also reported in Phase II based on the first-year data, are what would be expected: students with more financial resources tend to attempt more courses and to complete more.

The two equations in Table 4-2 also show similar patterns of relationships between the outcome measures and the conditioning variable characterizing the students' ethnicity. Non-Black minority students tend to attempt few courses and to complete fewer than do White students. There is a positive relationship between Black status and educational intensity; that is, when

other variables are controlled for, Black students tend to attempt more courses than do the White students. This latter finding is a reversal of the relationship found in the Phase II data.

For both outcome measures represented in the equations summarized by Table 4-3, there is a negative relationship with institutional enrollment, i.e., as also found in Phase II, students originally enrolled in larger schools tend to attempt and to complete fewer courses.

Several other predictor variables showed significant relationships with intensity or progress, or both, but in general these relationships were relatively weak and inconsistent, and in some cases reversed trends found in the base-year data. Higher educational costs (tuition and fees) were associated with fewer course units attempted but greater numbers of units completed (both associations were positive in the base year). Size of project per-student budget was positively associated with intensity but not with progress; in the base year, the only significant relationship was with progress. Institutional acceptance of project students was negatively associated with intensity, whereas in the base year it was positively related to both intensity and progress. Given the weakness and inconsistency of these relationships, they would seem to have little meaning or relevance for future program policy.

3. Grade Point Average

Table 4-4 shows the results of the final regression relating the predictor variables to student performance, defined as the student's overall grade point average or GPA. Again, the primary concern of this study is with the impact of

Table 4-4. Linear Regression Predicting Performance (GPA)
(N=2676)

VARIABLES	Regression Coefficient	Unique Variance Explained (Percentage)
Baseline Condition (Intercept)*	2.051	
Public 2-year	0.955	0.2
Private 4-year	2.063	0.7
Profile 3	-1.271	0.3
Profile 7	-2.403	0.4
Profile 8	-1.724	0.2
Profile 9	-1.366	0.2
Non-Academic Services	0.040	0.1
Black	-4.463	4.2
Other Minority	-2.452	1.0
Dependency Status (Independent of Family)	1.025	0.3
Incentives	1.784	2.9
Family Income	0.994	0.7
Project Acceptance	0.166	0.1
Project Budget	0.194	0.2
R^2 = .109		

*Intercept represents a student originally in a public 4-year college, who received no SSDS or SSDS-like services, who is White and from a family with higher than average income, and who was living at home or in a dormitory during 1979-80.

variables reflecting the delivery of SSDS and SSDS-like services. Four of the service-delivery indicators have significant associations with the outcome: Profile 3, Profile 7, Profile 8, and Profile 9. Each of these profiles is associated with lower grade point averages (compared with students receiving no special services). These results are highly consistent with the base-year data, in which Profiles 3, 7, 8, and 10 were found negatively associated with GPA. Unlike the academic service profiles, however, the Non-Academic Services variable is positively related to GPA. The patterns of association for the service-delivery variables will be further discussed and interpreted in the summary of this chapter.

Higher grade point averages were found for SSDS-eligible students who were originally enrolled in public 2-year or in private 4-year institutions (compared with the arbitrarily defined baseline condition of public 4-year institutions). These findings are completely consistent with those reported earlier for the base year, but reverse in direction the trends found for the outcome measures of intensity and progress.

Both student incentives (scholarship/grant aid and loans) and students' family income were positively related to GPA. These findings agree with the earlier base-year study, and also with the analyses involving the outcome dimensions of progress and intensity. The relationship between student financial incentives and GPA was one of the strongest in the regression predicting GPA.

Table 4-4 shows a relationship indicating lower grades for Black and other minority students (compared with Whites). This is consistent with base-year results. However, the negative relationship for Black students reverses the trend reported above for the outcome measure of intensity.

Positive relationships with grades were found for project acceptance, student independence, and project budget. These results indicate that better grades were achieved by students who were independent of their parents, who were originally in host institutions where the SSDS projects were well accepted, and whose institutions had higher per-student budgets for their special service projects.

C. ANALYSIS OF IMPACT ON STUDENTS' EDUCATIONAL AND VOCATIONAL PLANS

The follow-up student survey administered in 1982-83 contained questions about the students' (or former students') expectations and plans for further education, and on their job plans. However, because the survey was administered at the end of what would normally be a student's senior year, the data on future educational plans were not useful or meaningful; most respondents had already completed all the education they expected or planned to receive. The data on job plans were examined for possible relationships with the same set of predictor measures used for the transcript-based outcomes, but few significant associations and no consistent or interpretable patterns of relationships were found. This may in part reflect the fact that there were many missing or uninterpretable responses to the question on job plans.

D. SUMMARY AND DISCUSSION OF RESULTS

This discussion of impact analyses is focused on outcomes derived from the transcripts. While the analyses showed that the predictors available for this evaluation could account for only a small proportion of the outcome variance, the results did suggest some trends that may have useful policy implications. These findings are summarized here, organized by type of predictor variable.

1. Services Received by Students

From the viewpoint of policy relevance, the predictors of most interest in this study are those reflecting the types and levels of SSDS and SSDS-like services delivered to students in their freshman year. These are the academic service profiles and the composite variable representing the amount of Non-Academic Services. For three of the transcript-derived academic outcome measures--persistence, intensity, and progress--a broad and perhaps surprising pattern can be discerned. Profiles representing intermediate levels of services, e.g., moderate amounts of one or two types of academically oriented services, were associated with greater persistence, intensity, and progress than the no-service baseline condition. On the other hand, the most extensive services, as presented by Profiles 7 through 10, tended not to produce superior outcomes compared with the no-service condition. It should be emphasized that these trends, while discernible in overall outline, are not highly consistent at the level of specific profiles. That is, not all "intermediate-level" profiles show positive relationships with any given academic outcome measure; furthermore the sets

of profiles having such relationships vary considerably from one outcome measure to another. A similar lack of consistency at the level of specific variables can be seen in the negative relationships between the "most extensive" service profiles and the outcome measures. There is no clear evidence that one particular combination of academic services (e.g., tutoring and counseling) was superior to another combination.

Nevertheless, the overall tendency for intermediate levels of services to be superior to either no special services or extensive services appears real, and demands interpretation. One possible explanation is that the most extensive services were targeted toward students who had the most serious academic deficiencies at the start of their post-secondary careers (and, indeed, some evidence to this effect was found in the base-year study), and that the services, though more intensive than those received by other students, were still not adequate to overcome the students' initial deficiencies. By contrast, it may be conjectured, the intermediate-level services were more widely distributed, (as seems substantiated by the base-year data) and initial academic status was not such an important factor in determining that distribution. Thus, according to this rationale, students receiving intermediate levels of services had substantially less deficit in entry skills to overcome, and the services were able to move students academically in a positve direction.

It is difficult to interpret the fact that the "most extensive services" profiles were positively associated with several academic outome measures in the students' freshman year (as discussed in the earlier Phase II report), but not in the follow-up survey reported here. Possibly the students who received heavy concentration of services in their freshman year received much less intensive services in subsequent years, and over a 3-year period the beneficial effects of the freshman-year services eroded. Unfortunately, the lack of detailed data on services provided to students after their freshman year makes it impractical to verify the premise of rapidly diminishing services.

As in the base year, the only relationships shown between academic services profiles and students' grades (GPA) are negative in direction. The explanation offered for this phenomenon in the Phase II report is probably still the best available: that the special services provided to students, though sometimes helpful in keeping the students enrolled and taking courses, were not potent enough with respect to the quality of the students' work, to offset the generally weak entry skills which characterize SSDS-eligible students.

Unlike the academic services profiles, the Non-Academic Services indicator showed a consistent and clearcut positive relationsip with the academic outcome measures. On the average, students who received more intensive Non-Academic Services (orientation, cultural services, assessment, referrals), showed greater persistence, attempted and completed more course units, and received higher grades. Such a finding

is all the more remarkable in light of the relatively short period of exposure received by students participating in such services (a combined total of about 6 hours). While a selection factor could explain the results (i.e., better students selected to receive such services), there is no evidence to support such an explanation, nor does it seem logically probable. The alternative, and seemingly more reasonable explanation is that the non-academic services gave students the kinds of support they needed, at crucial points in their postsecondary endeavors, not only to persevere in their work, but also complete more courses and to make better grades. Many of the kinds of students who qualify for SSDS services enter college uncertain about what will be expected of them, and about what kinds of help and resources they can expect of their institutions and special services projects. They often perceive themselves as being social and academic isolates from the rest of the institution, and believe that the cards are stacked against them. The kinds of assistance aggregated here under the term "Non-Academic Services" may help to alleviate many of the students' anxieties and uncertainties, convince the students that they have important sources of academic and social support within the institutions, and thereby free the students to concentrate on academic matters instead of on self-protective measures.

2. Project and Institutional Characteristics

Very few consistent or interpretable relationships were found between any of the institutional or project characteristics on which data were collected, and the transcript-based outcome measure. Students in

projects with higher per-student budgets tended to attempt more course units and to achieve better grades, but did not on the average, stay enrolled as long. SSDS-eligible students in institutions with larger enrollments showed greater persistence and attempted more course units, but completed fewer course units. The most consistent result was that students in 2-year institutions showed less persistence, and attempted and completed fewer course units, than those in public 4-year institutions. This finding is not surprising, as one would expect students who intended to complete more years of schooling to enroll in 4-year institutions.

3. Students' Financial Background and Resources

As in the base-year study, the follow-up data show that variables related to the students' financial status had some of the strongest and more consistent relationships with the outcome measures. Students from families with larger incomes persisted longer, attempted and completed more course units, and achieved better grades. It can probably be assumed that the family-income variable is serving as a proxy for the students' general socioeconomic backgrounds, and the positive relationship between socioeconomic status and academic success is well established.

More important from a policy viewpoint is the fact that the variable "Incentives" is also strongly and positively related to all four outcome measures. This variable, as discussed earlier in the chapter, is the sum (in dollars) of the grants and any tuition or fee waivers the student received while enrolled in a postsecondary institution.

Although SSDS projects do not provide funding assistance or directly arrange such assistance for students, some of the counseling and referral services may be directed toward helping students locate and apply for financial aid of various kinds. Certainly the study findings suggest that any help the projects can give in this direction may substantially benefit the students academic success. Before this interpretation can be fully accepted, however, further research is needed to be certain that the positive relationships reported here are not simply an artifact of selection effects, i.e., the more capable students may have received more financial assistance from the institutions because they had already demonstrated stronger academic potential.

4. Other Student Characteristics

The only other personal characteristic of students that showed substantial relationships with the outcome measures was their race or ethnicity. Identification with a minority group other than Black was associated with poorer status on all four outcome measures compared with Whites. (It should be noted that the preponderance of students in the Non-Black Minority category were of Hispanic origins.) Blacks, on the average, did not differ significantly from Whites on either Persistence or Progress. While the Blacks had lower grade point averages than Whites, they attempted more course units.

CHAPTER 5. RELATIONSHIPS AMONG FRESHMAN-YEAR SERVICES, POST-FRESHMAN SERVICES AND STUDENT OUTCOMES

In Chapter 4, the only data used on SSDS and SSDS-like services received by students were those recorded by project personnel in the students' freshman year, 1979-80. These data were analyzed in relation to outcome measures collected in 1982-83, to determine the longer-term impact of project services. Although some information had been collected from students in 1982-83 regarding the kinds and levels of special services they had received subsequent to the freshman year, there were apparent deficiencies in the quality and completeness of this information. It was felt that if the post-freshman service data were used in the impact analyses reported in Chapter 4, those deficiencies might weaken rather than strengthen the validity and interpretability of the findings.

What are the deficiencies of the student-reported data on post-freshman services? First, the response data represent students' subjective recall of events occurring over a 3-year period, and such recall can be quite inaccurate. Second, the response categories were quite broad: "never used", "used sometimes", and "used a lot"; by contrast, the earlier data on services received in 1979-80 were systematically recorded as the services were provided, in terms of specific types of services, amount of time involved, etc. Third, any analyses examining the post-freshman service data in relation to the 1982-1983 transcript (outcome) data would considerably constrict sample size, since such analyses are limited to students for whom both a transcript and a 1982-83 follow-up survey are available. An even more severe constriction occurs if one wishes to combine data on both freshman and post-freshman services with the 1982-83 outcome measures. As seen later in this chapter,

the sample size diminishes from 2676 for the impact analyses reported in Chapter 4 using only freshman service data, to under 1400 for analyses utilizing both freshman and post-freshman service data.

Despite these very real problems, however, it seemed desirable for several reasons, to conduct additional impact analyses using the post-freshman service data. First, it is important to determine whether the relationships reported in Chapter 4 between freshman-year services and the 1982-83 outcome measures hold up when the post-freshman service information is taken into account. Second, it is of interest to ascertain whether the post-freshman services show the same general patterns of relationship with (impact on) the student outcomes as the freshman-year services. Third, while the data do not permit accurate determination of the relative impacts of freshman and post-freshman services on the student outcomes, some tentative comparison of these impacts would be useful.

Table 5-1 presents data relevant to these three issues. The table summarizes results of a linear regression analysis using both the freshman-year and post-freshman service data to predict the four transcript-based outcome measures. For each combination of predictor variable and outcome measure where a significant relationship was found, the table shows the calculated regression coefficient and the percentage of outcome variance explained by the predictor.

Addressing first the issue of statistical controls for differences in the level of post-freshman special services received by the sample students, it can be seen by comparing Table 5-1 with Tables 4-2 through 4-4, that such controls do not greatly change the relationships between freshman-year

Table 5-1. Linear Regression Using Freshman-Year and Post-Freshman Services to Predict Intensity, Progress, Persistence, and Performance (N=1380)

VARIABLE		INTENSITY		PROGRESS		PERSISTENCE		PERFORMANCE	
		Regression Coefficient	Percentage Variance Explained	Regression Coefficient	Percentage Variance Explained	Regression Coefficient	Percentage Variance Explained	Regression Coefficient	Percentage Variance Explained
Baseline Condition/Intercept (No Services)		86.77		84.69		10.84		28.00	
Freshman-Year Services (1979-80)	Profile 1					0.94	0.2		
	Profile 3							-1.60	0.5
	Profile 5			16.01	0.2			3.18	0.3
	Profile 6	21.82	0.7	21.38	0.7				
	Profile 7							-2.50	0.5
	Non-Academic Services	0.80	1.1	0.75	1.0	0.04	0.4		
Post-Freshman Services	Gen'l. Tutoring Help					0.64	0.8		
	Instruction in Reading Skills							-0.79	0.3
	Instruction in Math Skills	-6.80	0.5	-9.74	1.0	-1.11	1.3	-1.75	1.1
	Instruction in Study Skills					-0.78	0.8		
	English as a Second Language	-6.05	0.2	-6.79	0.2			-1.05	0.2
	Instruction in Native Language	-8.65	0.2	-8.61	0.3				
	Orientation								
	Employment Help	9.11	1.4	9.14	1.5	0.59	0.8	0.80	0.5
	Field Trips	9.26	0.9	9.44	1.0	0.65	0.6		
		R^2 = 0.54		R^2 = 0.62		R^2 = 0.47		R^2 = 0.05	

services and student outcomes. When post-freshman service data are entered into the regression along with freshman-year data, there is still a tendency for Participation Profiles representing moderate levels of freshman-year academic services to be associated with higher student outcomes, although this is true for only certain combinations of profiles and outcome measures. Also, as in the Chapter 4 analyses, there is some tendency for Profile 7 (representing more intensive services) to be associated with lower student outcomes, at least with regard to grades achieved. Finally, there continues to be a positive association between Non-Academic Services and most of the outcome measures. All of these relationships are spotty, but follow the same overall pattern as that found when post-freshman service data were not taken into account.

The second issue raised earlier in this chapter is whether the post-freshman services show relationships with the outcome measures that are similar to those between the freshman-year services and those outcomes. With respect to the academically oriented services, the answer appears to be no. Several of the Participation Profiles had positive association with at least some of the outcome measures, whereas most of the post-freshman academic services show negative association with the outcomes; these include Basic Reading, English as a second language, Basic Math, and Study Skills. It is important to keep in mind that the variables used to characterize freshman-year academic services are defined quite differently from those for the post-freshman services; nevertheless, it is surprising that there should have been an apparent reversal in the direction of the impact of those services, between the freshman year and subsequent years. The results must be interpreted with considerable caution, given the uncertainty about the quality

of the student-provided data on post-freshman services, but one may conjecture that after the students' freshman year, project services might most productively be focussed on non-academic services. This conjecture is reinforced by the fairly consistent positive relationships shown in Table 5-1 between two such services--Employment Help and Field Trips--and the outcome measures. A similar relationship was noted earlier between the freshman-year Non-Academic Services variable and student outcomes.

The third issue of interest here concerns the relative strength of the impact of freshman-year services and the post-freshman services on student outcomes. Table 5-1 indicates that, collectively, the variables representing post-freshman services accounted for more of the variance in the longer-term outcome measures than did those representing services provided in the freshman year. As noted earlier in this chapter, however, the post-freshman academically oriented services (e.g., Instruction in Math Skills, Instruction in Study Skills) had largely negative association with the outcome measures.

APPENDIX

STUDENT FOLLOW-UP SURVEY

OMB No. 1875-0001
Approval Expires July 31, 1983

National Study of College Students

STUDENT SURVEY

(1982-83 Follow-Up)

Project and form codes

This study is authorized by law (20 USC 1226). While you are not required to respond, your cooperation is needed to make the results of this study comprehensive, accurate, and timely. All information which would permit identification of the individual will be strictly protected, and will be used only by persons engaged in and for the purposes of the survey.

Prepared for the
U.S. Department of Education
by
System Development Corporation
2500 Colorado Avenue
Santa Monica, California 90406

E.D. No. 627-13

DIRECTIONS

Please read every question in this survey carefully. Answer each one according to the instructions by placing checks in the boxes or filling in the requested information. If you make a mistake, erase (or mark out) the wrong answer and check the correct box or write in the correct information.

When you have completed every question, please put the survey in the postage-paid, addressed envelope provided and return it to:

National Study of College Students
System Development Corporation
2500 Colorado Avenue
Santa Monica, California 90406

Note: The directions and numbers in the lighter type (card 1 col 1-2) are data processing instructions. Please ignore them in completing this questionnaire.

Thank you for your cooperation.

91

INFORMATION SHEET

Please help us update our records by printing your current mailing address and telephone number in the spaces below.

Number and street, including apartment number, or rural route

_____

City, town, or post office; state; and ZIP code

_____

Area Code

Telephone number |_|_|_|_|_|_|_|_|_|_|

Also, please print the name and address of the postsecondary school (college or university) that you are now attending or (if not currently enrolled), that you last attended.

Name of school

_____

City or town, state

_____

1. Is the school you are now attending (or the last school you attended, if you are not currently in school) the same school you attended in the Fall of 1979?

(Check only one box)

Yes, it is/was the same school	☐
No, it is/was a different school	☐

For each of the time periods below, indicate whether you were attending school, and if so, what type of school you were attending.

	(Check one box for each time period) During this time, I was attending a:				
	I was not attending any school	Vocation trade, business or other career training school	Two-year college	Four-year college/ university	Graduate or professional school
Winter 1980	☐	☐	☐	☐	☐
Spring 1980	☐	☐	☐	☐	☐
Summer 1980	☐	☐	☐	☐	☐
Fall 1980	☐	☐	☐	☐	☐
Winter 1981	☐	☐	☐	☐	☐
Spring 1981	☐	☐	☐	☐	☐
Summer 1981	☐	☐	☐	☐	☐
Fall 1981	☐	☐	☐	☐	☐
Winter 1982	☐	☐	☐	☐	☐
Spring 1982	☐	☐	☐	☐	☐
Summer 1982	☐	☐	☐	☐	☐
Fall 1982	☐	☐	☐	☐	☐

2. Listed below are several reasons why some students decide to leave school. Please review the list, then indicate the reason(s) you left school. (ANSWER ONLY IF YOU ARE NOT NOW ATTENDING SCHOOL.) In the box by the reason that is most important, put the number [1], in the box by the answer that is second most important, put the number [2]; etc. Do this for as many reasons as apply to you.

I had poor personal health..... 28 ☐

I didn't have enough money..... 29 ☐

I had poor grades (e.g., failing several courses)..... 30 ☐

I was uncertain about my career goals or I changed my career goals..... 31 ☐

I got a job..... 32 ☐

I graduated..... 33 ☐

I had family problems (e.g., illness in family, mother/father needed my financial help)..... 34 ☐

I got married..... 35 ☐

I joined the military..... 36 ☐

My courses were too difficult..... 37 ☐

My courses were not relevant to the work I wanted to do..... 38 ☐

My parents wanted me to quit..... 39 ☐

I was expelled or suspended..... 40 ☐

Other (specify):_____ 41 ☐

3. For each of the time periods below, indicate whether you were a full-time or part-time student.

(Check one box for each time period)

	Full-time student	Part-time student	I was not attending any school
Fall 1979	42/1 ☐	2 ☐	3 ☐
Winter 1980	43/1 ☐	2 ☐	3 ☐
Spring 1980	44/1 ☐	2 ☐	3 ☐
Summer 1980	45/1 ☐	2 ☐	3 ☐
Fall 1980	46/1 ☐	2 ☐	3 ☐
Winter 1981	47/1 ☐	2 ☐	3 ☐
Spring 1981	48/1 ☐	2 ☐	3 ☐
Summer 1981	49/1 ☐	2 ☐	3 ☐
Fall 1981	50/1 ☐	2 ☐	3 ☐
Winter 1982	51/1 ☐	2 ☐	3 ☐
Spring 1982	52/1 ☐	2 ☐	3 ☐
Summer 1982	53/1 ☐	2 ☐	3 ☐
Fall 1982	54/1 ☐	2 ☐	3 ☐

4. Listed below are a number of student services and programs that many colleges and universities provide for their students. For each service or program, please check the one box that best describes your most recent experience with it since the Spring of 1980. If you are not presently attending school, complete this question in terms of the last school you attended.

	Since the Spring of 1980:			If you used this service, who funded it?		
	I have never used this service	I used service sometimes	I used service a lot	Federal government	Other sources	Don't know
Tutoring by faculty, teaching assistants, other students (not including informal help from friends or study group)	☐	☐	☐	☐	☐	☐
Counseling on personal, financial, academic, or other types of problems	☐	☐	☐	☐	☐	☐
Basic skills or remedial instruction in reading or writing	☐	☐	☐	☐	☐	☐
English as a second language (ESL) instruction	☐	☐	☐	☐	☐	☐
Basic skills or remedial instruction in mathematics	☐	☐	☐	☐	☐	☐
Help in developing good study skills, test taking skills	☐	☐	☐	☐	☐	☐
General orientation to campus life, career choices, minority cultures, health	☐	☐	☐	☐	☐	☐
Assistance in finding a job	☐	☐	☐	☐	☐	☐
Organized field trips to off-campus events (plays, concerts, museums, etc.)	☐	☐	☐	☐	☐	☐
Special services for physically handicapped students (readers, transportation, etc.)	☐	☐	☐	☐	☐	☐
Academic or counseling assistance in my native language (other than English)	☐	☐	☐	☐	☐	☐

5. The same list of services and programs that was in the preceding question is repeated below. This time, please rate how helpful each service or program was the last time you used it. Remember, we are only interested in services you have received after the 1979-80 academic year. (If you are not currently attending school, answer this question in terms of the last school year after 1979-80 that you attended.)

	(Check one box on each line)			
	Never used	I used this service/program and it was:		
		Not helpful	Somewhat helpful	Very helpful
Tutoring by faculty, teaching assistants, other students (not including informal help from friends or study groups)	☐	☐	☐	☐
Counseling on personal, financial, academic, or other types of problems	☐	☐	☐	☐
Basic skills or remedial instruction in reading or writing	☐	☐	☐	☐
English as a second language (ESL) instruction	☐	☐	☐	☐
Basic skills or remedial instruction in mathematics	☐	☐	☐	☐
Help in developing good study skills, test taking skills	☐	☐	☐	☐
General orientation to campus life, career choices, minority cultures, health	☐	☐	☐	☐
Assistance in finding a job	☐	☐	☐	☐
Organized field trips to off-campus events (plays, concerts, museums, etc.)	☐	☐	☐	☐
Special services for physically handicapped students (readers, transportation, etc.)	☐	☐	☐	☐
Academic or counseling assistance in my native language (other than English)	☐	☐	☐	☐

6. How far would you like to get in school, and how far do you expect to get in the next five to six years?

(Check only one box in each column)

	Would like to get	Expect to get
Complete two-year degree (for example, A.A. degree, non-academic degree, certificate, etc.)	25/1 ☐	26/1 ☐
Finish college (4- or 5-year degree, teaching credential)	2 ☐	2 ☐
Master's degree or equivalent	3 ☐	3 ☐
Ph.D. or Ed.D.	4 ☐	4 ☐
Professional school degree (law or medical degree, for example)	5 ☐	5 ☐
Undecided	6 ☐	6 ☐
No further schooling	7 ☐	7 ☐

7. Are you currently working?

(Check only one box)

No	27/1	☐
Yes, full-time (32 hours a week or more)	2	☐
Yes, part-time (less than 32 hours a week)	3	☐

If you checked yes (either full-time or part-time) read the list below carefully and check the one box that best describes the kind of work you now do.

(Check only one box)

Office worker (bank-teller, bookkeeper, secretary, ticket agent)	28/1	☐
Homemaker (full-time)	2	☐
Manager or administrator (in business, education, or government)	3	☐
Protective services (police, fire, military)	4	☐
Sales (sales clerk, real estate, advertising, or insurance agent)	5	☐
Technical or skilled crafts (automobile mechanics carpenter, computer programmer, draftsman, electrician, medical or dental technician, practical nurse)	6	☐
Other (specify):_____	7	☐

If you are currently working, about how much does your employer pay you? (Skip this question if you are not working.)

Hourly Pay Rate	(Check only one box)	
Less than $4.00 hourly	29/1	☐
$4.00-$5.99 hourly	2	☐
$6.00-$7.99 hourly	3	☐
$8.00-$9.99 hourly	4	☐
$10.00-$11.99 hourly	5	☐
More than $11.99 hourly	6	☐

8. Below is a list of different types of work followed by several examples of jobs that fit into each type. Read the whole list carefully and then check the one box that best describes the kind of work you plan to do five years from now. Please indicate your first choice only.

(Check only one box)

Office worker (bank-teller, bookkeeper, secretary, ticket agent)	20 31/01	☐
Homemaker (full-time)	02	☐
Manager or administrator (in business, education or government)	03	☐
Professional (accountant, architect, actor, doctor, engineer, lawyer, registered nurse, social worker, scientist)	04	☐
Protective services (police, fire, career military)	05	☐
Sales (sales clerk, real estate, advertising, or insurance agent)	06	☐
Teacher (elementary, secondary, or college-level)	07	☐
Technical or skilled crafts (automobile mechanic, carpenter, computer programmer, draftsman, electrician, medical or dental technician, practical nurse)	08	☐
Totally undecided: no idea at all of what type of work I will do	09	☐
Other (specify):_____	10	☐

9. Some schools, including the one you attended in the 1979-80 school year, have projects offering special services (tutoring, counseling, referrals, etc.) to some students. How many years in total did you participate in such a project and receive such services?

I was never in such a project..... ☐

I was in such a project for:
- One year..... ☐
- Two years..... ☐
- Three or more years..... ☐

If you checked the top box (never in a project), then you have completed this item. If you said you were in a project for some period, please indicate how helpful the services have been to you in each of the areas listed below.

(Check one box on each line.)

	Not at all helpful	Somewhat helpful	Very helpful
Improving your overall academic performance.....	☐	☐	☐
Improving your employment opportunities.....	☐	☐	☐
Helping you solve campus problems.....	☐	☐	☐
Helping you solve personal problems.....	☐	☐	☐
Improving your social interactions.....	☐	☐	☐

Note:

If you are not now enrolled in school, you have completed this questionnaire, and need not answer the remaining questions. If you are now in school, please answer the questions below, which are designed to help us learn about how you pay the expenses for your postsecondary education. Some of the questions ask about the "current school term." "School term" refers to the time period, usually 2 to 4 months in length, during which the school provides instruction to students. Most schools use either a semester system (with two semester terms during the regular school year) or a quarter system (with three quarter-terms during the regular school year). The term "current" refers to the school term during which you have been asked to complete this questionnaire.

10. Have you used any personal savings to help pay your educational expenses during the current school term?

(Check only one box)

No	38/1 ☐	
Yes	2 ☐	($_____) Specify total savings used 39-43

11. Did you receive any type of educational loan from a bank, the state, the federal government, or from some other source, to help pay for your schooling during the current school term? If you received a loan or loans, please check the "yes" category below and record the total amount of all loans received for the terms.

(Check only one box)

No	44/1 ☐	
Yes	2 ☐	($_____) Specify total amount of loans 45-49

12. Indicate below whether or not you received a Federal Guaranteed Student Loan or a National Direct Student Loan during the current school term.

(Check one box for each type of loan.)

	Yes	No
Federal Guaranteed Student Loan	50/1 ☐	2 ☐
National Direct Student Loan	51/1 ☐	2 ☐

13. Did you receive any type of grant or scholarship to help you pay for your schooling during the current school term? If you received a grant(s) or a scholarship(s), please check the "yes" category below and record the total amount for all grants or scholarships received for the term.

(Check only one box)

No	52/1 ☐	
Yes	2 ☐	($_____) Specify total amount of grants/scholarships 53-57

14. Indicate below whether or not you received a Pell Grant (Basic Educational Opportunity Grant) or a Supplemental Educational Opportunity Grant during the current school term.

(Check one box for each type of loan)

		Yes	No
Pell Grant (Basic Educational Opportunity Grant)	58/1	☐	2 ☐
Supplemental Educational Opportunity Grant	59/1	☐	2 ☐

15. Did you receive any financial assistance during the current school term from your parents or relatives to help pay the expenses of your postsecondary education (for example, for housing, tuition, books, food, transportation expenses)?

(Check only one box)

No	60/1	☐
Yes, and the amount for the term was:		
$1 - $99 for term	2	☐
$100 - $199 for term	3	☐
$200 - $399 for term	4	☐
$400 - $599 for term	5	☐
$600 - $799 for term	6	☐
$800 - $999 for term	7	☐
More than $1000 for term	8	☐

16. Do you participate in a work-study program at your school during the current school term?

(Check only one box)

No	61/1	☐
Yes	2	☐